SONY®

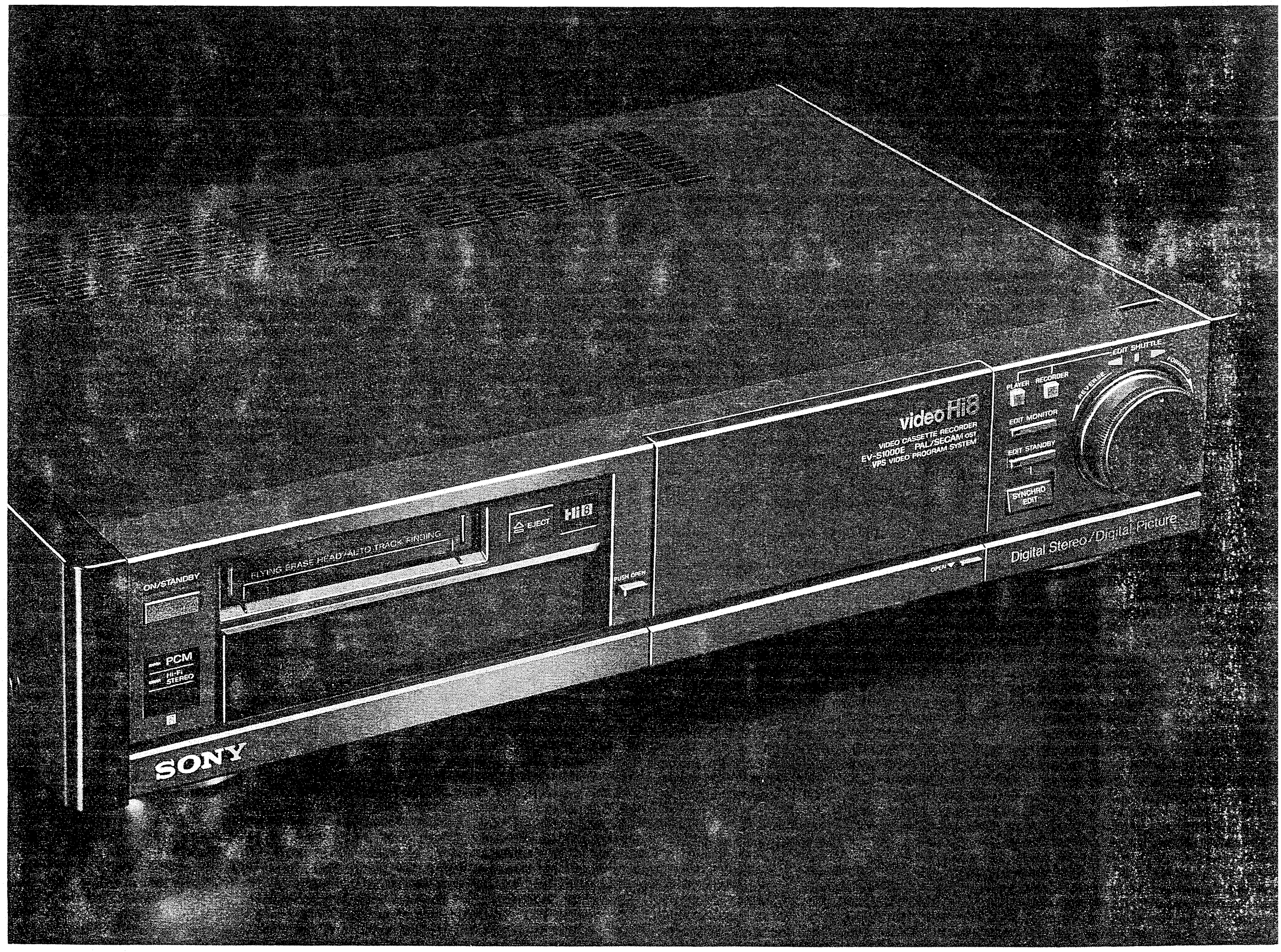
3-751-158-**43** (4)

Stereo Video Cassette Recorder 8

EV-S1000E (PAL)/(PAL/SECAM OST)

Operating Instructions

Hi 8



video Hi8
VIDEO CASSETTE RECORDER
EV-S1000E PAL/SECAM OST
VPS VIDEO PROGRAM SYSTEM
FLYING ERASE HEAD/AUTO TRACK FINDING
EJECT
Hi8
ON/STANDBY
PCM
Hi-Fi STEREO
PUSH OPEN
OPEN
PLAYER
RECORDER
EDIT MONITOR
EDIT STANDBY
SYNCHRO EDIT
EDIT SHUTTLE
REVERSE
FORWARD
Digital Stereo/Digital Picture
SONY

EV-S1000E

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WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet.
Refer servicing to qualified personnel only.

NOTICE FOR THE CUSTOMERS IN THE UNITED KINGDOM

IMPORTANT

The wires in the mains lead are coloured in accordance with the following code:

BLUE: Neutral

BROWN: Live

As the colours of the wires in the mains lead of this apparatus may not correspond to the coloured markings identifying the terminals in your plug proceed as follows: The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black. The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

On Colour Broadcasting Systems

- The EV-S1000E (UK) is designed to record and play back using the PAL colour system. Recording and playback of video sources based on other colour systems cannot be guaranteed.
- The EV-S1000E can receive PAL colour signals and DDR SECAM signals which will be transformed into PAL colour signals. Recording and playback are based on the PAL colour system.

Notes

- This unit uses 8 mm video format cassettes.
- It records in the SP mode (approximately 20.051 mm/second) and the LP mode (approximately 10.058 mm/second) and can play back in the SP mode and the LP mode.
- This unit is equipped with PCM (digital audio) recording and playback functions. However, digital multiple audio recording and playback cannot be performed.

Caution

Television programmes, films, video tapes and other materials may be copyrighted.
Unauthorized recording of such materials may be contrary to the provisions of the copyright laws. Also, use of this recorder with cable television transmission may require authorization from the cable television transmitter and/or programme owner.

About this Manual

- This manual covers the EV-S1000E (UK model) and the EV-S1000E (Continental Europe model). The principal difference between the two models are as listed below:

	EV-S1000E(UK)	EV-S1000E
	UK model	Continental Europe model
Operating power voltage	240 V AC	220 V AC
Colour system	PAL	PAL/DDR SECAM
Channel coverage	UHF B21 to B68	VHF E2 to E4, E5 toE12 UHF E21 to E69 Cable TV channels S01 to S03, S1 to S20, S21 to S41
VPS switch	Not provided	Provided
Side wood	Not provided	Provided

- In this manual, the EV-S1000E (Continental Europe model) will be referred to as EV-S1000E and the EV-S1000E (UK model) will be referred to as EV-S1000E (UK).
- The photos and illustrations used in this manual are those of the EV-S1000E. Any differences in the appearance and the operation of the EV-S1000E (UK) is clearly mentioned in the text.

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Precautions

On Safety

- For EV-S1000E (UK), operate on 240 V AC, 50 Hz. For EV-S1000E, operate on 220 V AC, 50 Hz.
- Should any solid object or liquid fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- If the unit will not be used for an extended period, unplug it from the mains outlet. To disconnect the cord, pull it out by the plug. Never pull the lead itself.
- The unit is not disconnected from the mains (AC power source) as long as it is connected to the mains outlet, even if the unit itself has been turned off.

On Installation

- Allow adequate air circulation to prevent internal heat build-up.
- Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies, etc.) that may block the ventilation holes.
- Do not install the unit near heat sources such as radiators or air ducts or in a place subject to direct sunlight, excessive dust, mechanical vibration or shock.
- The unit is designed for operation in a horizontal position. Do not install it in an inclined position.
- Keep the unit and cassette tapes away from equipment with strong magnets, such as microwave ovens or large loudspeakers.
- Do not place any heavy object on the unit.

On Operation

- When the unit is not in use, turn the power off to conserve energy and to extend its life.
- Remove and store video cassettes after recording or playback.

On Cleaning

- Clean the cabinet, panel and controls with a dry soft cloth, or a soft cloth slightly moistened with a mild detergent solution.
- Do not use any type of solvent, such as alcohol or benzine, which might damage the finish.

On Repacking

- Do not throw away the carton and packing materials. They make an ideal container to transport the unit. When shipping the unit to another location, repack it as illustrated on the carton.

On Cassette Care

- Store cassettes in their cases and keep them in an upright position to prevent intrusion of dust and uneven winding.

On the Remote Controller

- Be sure not to lose the Remote Commander. Some function of this VTR can not be performed without the Remote Commander.

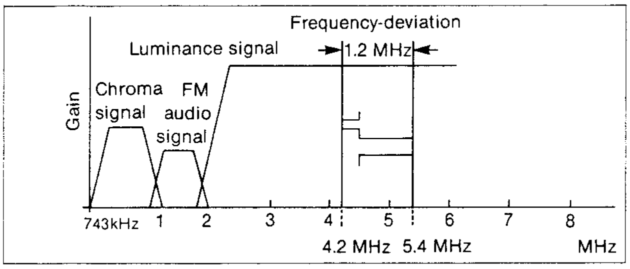
If you have any questions about the unit, contact your Sony service facility.

Hi8 (High Eight) Video System

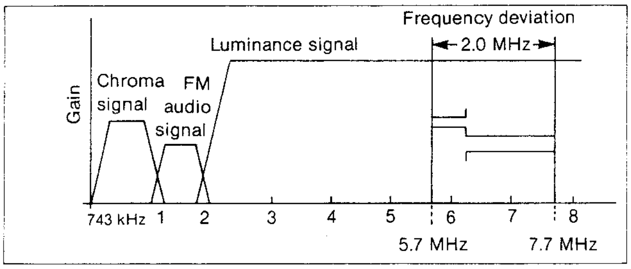
High Quality Picture

Information capacity is the key element for picture improvement. It can be increased by shifting the FM carrier frequency range. In the Hi8 video system, the FM carrier frequency range of the luminance signal is shifted to 5.7 — 7.7 MHz, up from the 4.2 — 5.4 MHz of the standard 8 mm video system. Thanks to this improvement, the horizontal resolution is increased.

Frequency allocation of the standard 8 mm video system



Frequency allocation of the Hi8 video system



High Grade Tape to Match the Hi8 Video System

Metal evaporated tapes have been developed exclusively for Hi8 recording. The high magnetic energy of the metal evaporated tape which allows for high-density recording, coupled with the Hi8 video recording technology will cover a wide frequency range to achieve recording of excellent picture quality.

S VIDEO (Separated Luminance/Chrominance Signal) Input/Output Connectors

Conventional video equipment transmits or receives the composite video signal. The composite video signal is liable to produce interference resulting in picture quality loss. On the other hand, the S VIDEO connector transmits or receives the video signal separated into the luminance signal and the chrominance signal.
Flickers and colour blur in the picture are minimized with the separated video signals and picture sharpness is enhanced to such an extent that even hair and fine stripes are clearly visible. The S VIDEO connector also assures minimum loss in picture quality during editing.

Compatibility with a Standard 8 mm Video Cassette Recorder

Refer to the chart below for the compatibility between the Hi8 video system and the standard 8 mm system.

Recording with this VTR

Tape used	Hi8 indicator	Recording system
Hi8 tape	On	Hi8
	Off	Standard 8 mm video system
Standard 8 mm tape	Automatically turned off	Standard 8 mm video system

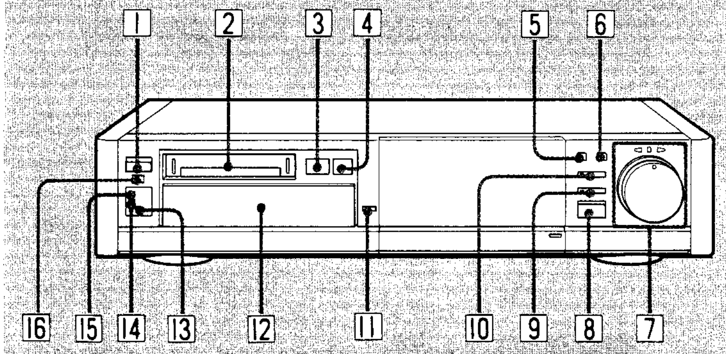
Playback with this VTR

Tape used	Playback system
Tape recorded in Hi8 video system	The recording video system is automatically selected
Tape recorded in standard 8 mm video system	

Notes

- Hi8 recording or playback can only be performed with a Hi8 tape.
- A standard 8 mm tape cannot be recorded or played back using the Hi8 video system.
- The recording tape speed of the Hi8 video system is compatible with the standard 8 mm video system. Recording/playback time is 1.5 hours in the SP mode and 3 hours in the LP mode using a E5-90HME tape or equivalent.

Operational Parts



Front Panel

1 **ON/STANDBY switch**

2 **Cassette compartment**

3 **≜ EJECT button**

4 **Hi8 (Recording/playback) indicator**
Lights to indicate that Hi8 recording or playback can be performed.

5 **PLAYER control button**

6 **RECORDER control button**

7 **EDIT SHUTTLE (REVERSE/FORWARD) and indicator**

8 **SYNCHRO EDIT button and indicator**

9 **EDIT STANDBY button and indicator**

10 **EDIT MONITOR button and indicator**

11 **PUSH OPEN button**

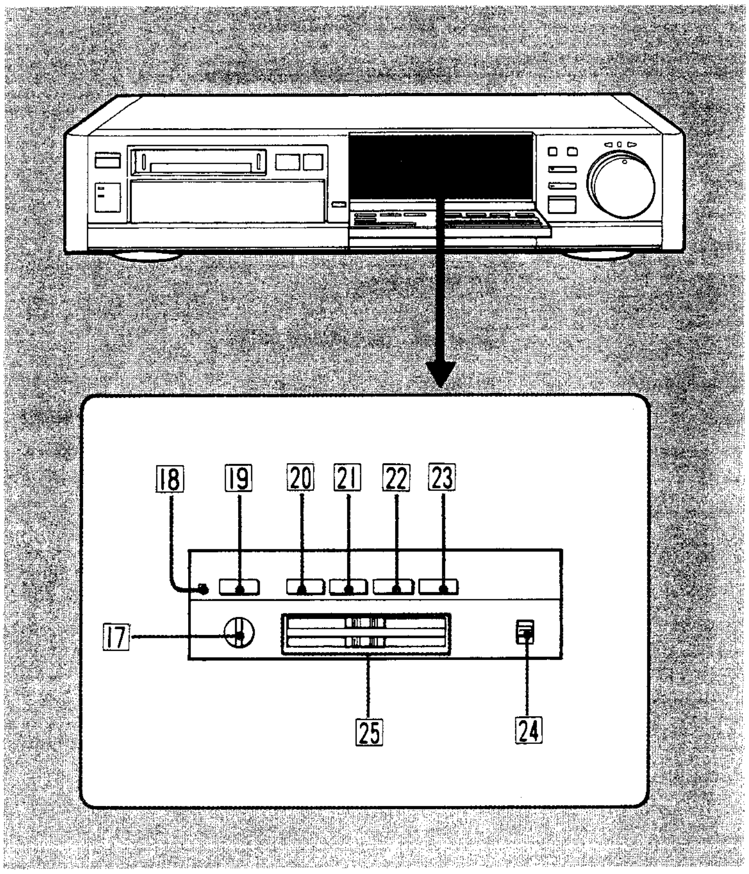
12 **Display window**

13 **Remote sensor**

14 **Hi-Fi STEREO indicator**
Lights when playing back the Hi-Fi audio track recorded in the bilingual or stereo mode. Also lights when recording is made in the bilingual or stereo mode on the Hi-Fi track.

15 **PCM indicaor**
Lights when recording on or playing back the PCM audio track.

16 **ON/STANDBY lamp [for EV-S1000E (UK) only.]**
Lights when the VTR is in the standby mode.



[17] **PHONE LEVEL (headphones level) control**

[18] **Reset switch**
Press this switch with a pointed object such as a ball point pen if the VTR does not operate even when pressing the operating buttons. When this switch is pressed, the information entered to the VTR's memory will be lost. Reset the information before operating the VTR again.

[19] **Hi8 mode button**

[20] **COUNTER RESET button**

[21] **TV/VTR button**

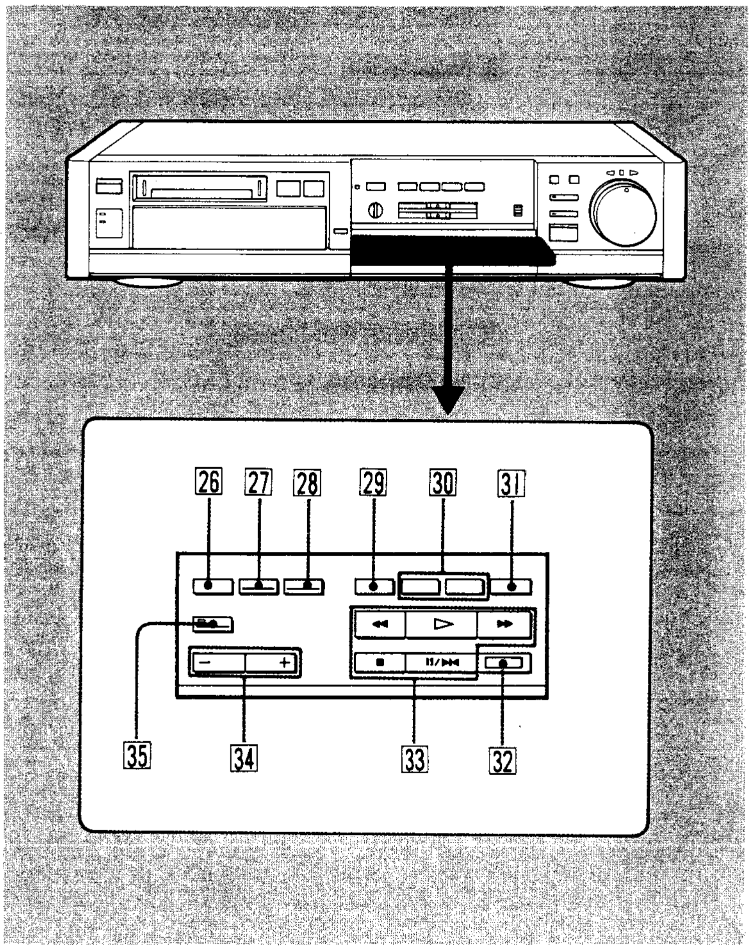
[22] **REC MODE SP/LP button**

[23] **INPUT SELECT button**

[24] **AUDIO MONITOR select switch**
[PCM/MIX/STD (Hi-Fi)]

[25] **REC LEVEL controls**

Operational Parts



26 **TIMER CHECK button**

27 **TIMER REC ON/OFF button**

28 **QUICK TIMER button**

29 **INDEX button**

30 **INDEX MARK/ERASE buttons**

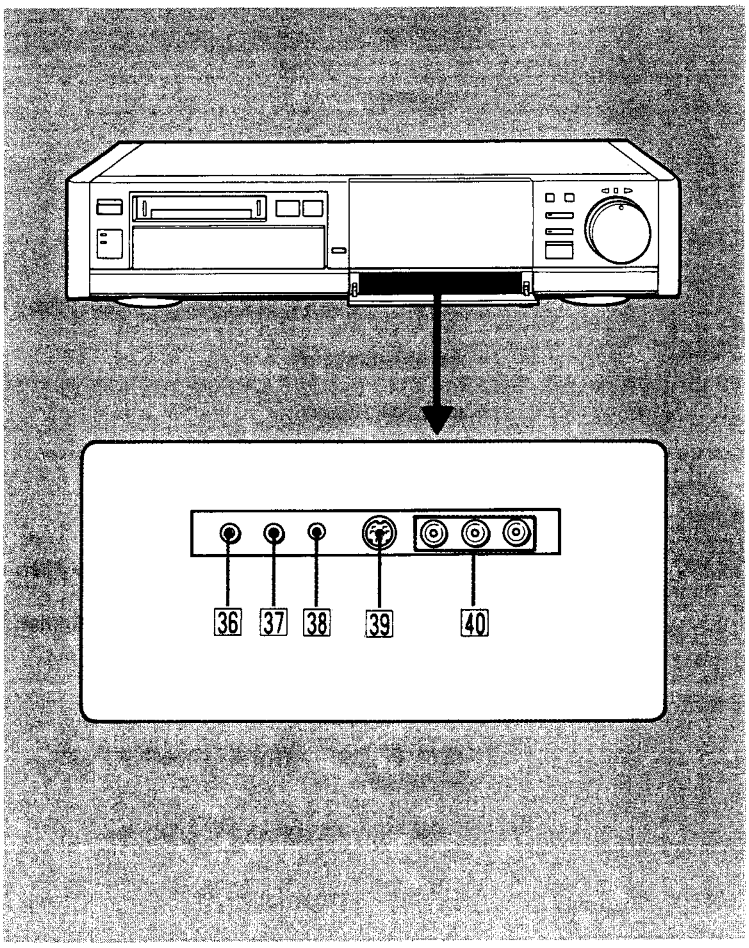
31 **EDIT button**

32 **● REC (recording) button**

33 **Tape transport buttons**
◀◀ REW (rewind), ▷ PLAY (playback), ▶▶ FF (fast-forward), ■ STOP, ıı/▶◀ PAUSE/STILL

34 **PROGRAM +/− buttons**

35 **AUDIO DUB button and indicator**



36 **HEADPHONES jack (stereo minijack)**

37 **MIC (microphone) jack (minijack)**

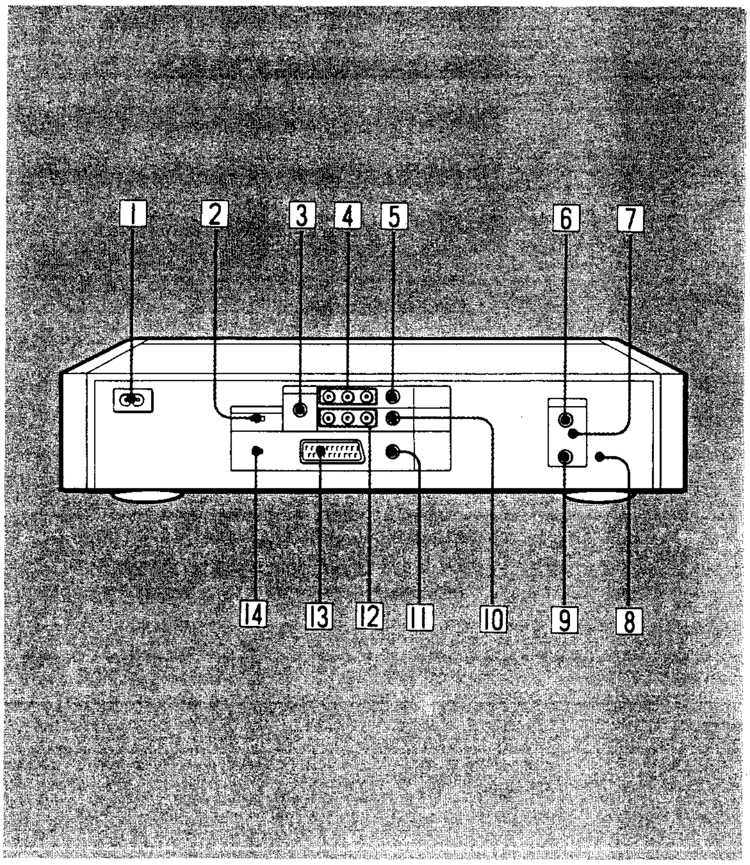
38 **CONTROL L (LANC) jack (stereo mini-minijack)**

39 **LINE IN 2 S VIDEO connector (4-pin mini DIN)**

40 **LINE IN 2 VIDEO/AUDIO jacks (phono)**
When connecting a monaural equipment to these jacks, connect to the LINE IN 2 AUDIO L (MONO) jack only.

About LANC
LANC stands for Local Application Control Bus System.
The LANC connector is used for controlling the tape transport of video equipment and peripherals connected to it. This connector has the same function as the connectors indicated as CONTROL L or REMOTE.

Operational Parts



Rear Panel

1 AC INPUT

2 COMMAND MODE selector

3 CONTROL L (LANC) connector (5-pin DIN)

4 LINE IN 1 VIDEO/AUDIO jacks (phono)

5 LINE IN 1 S VIDEO connector (4-pin mini DIN)

6 AERIAL IN socket

7 DX/LOCAL switch

8 RF CHANNEL screw (30 CH to 39 CH)

9 AERIAL OUT socket

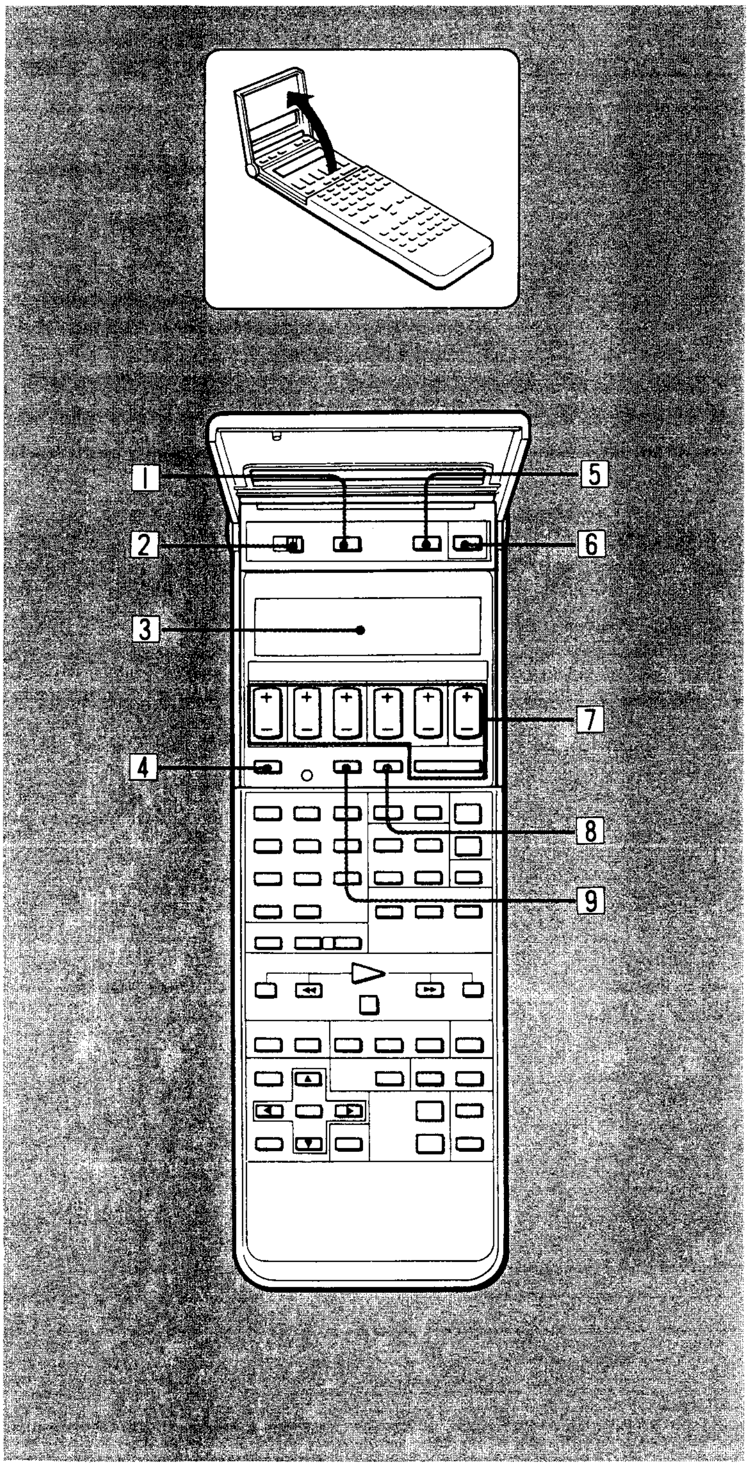
10 LINE OUT S VIDEO connector (4-pin mini DIN)

11 MONITOR OUT S VIDEO connector (4-pin mini DIN)

12 LINE OUT VIDEO/AUDIO jacks (phono)

13 MONITOR OUT EURO-AV connector (21-pin CENELEC)

14 VIDEO OUT (VIDEO or S VIDEO) selector



Remote Commander RMT-451

Before you begin

- •The buttons on the Commander with the same name or mark as those on the unit have the same function.
- •The buttons with a red dot inscribed on top can be used to remotely control Sony TV's with the R mark when the TV/VTR remote control selector is set to TV.
- •Keep the upper cover closed except where noted.

1 **TIMER REC (ON/OFF) button**

2 **TV/VTR remote control selector**
Set to VTR to control this VTR and set to TV to control the TV.

3 **LCD (Liquid-crystal display)**

4 **COMMAND MODE button**

5 **TV/VTR button**

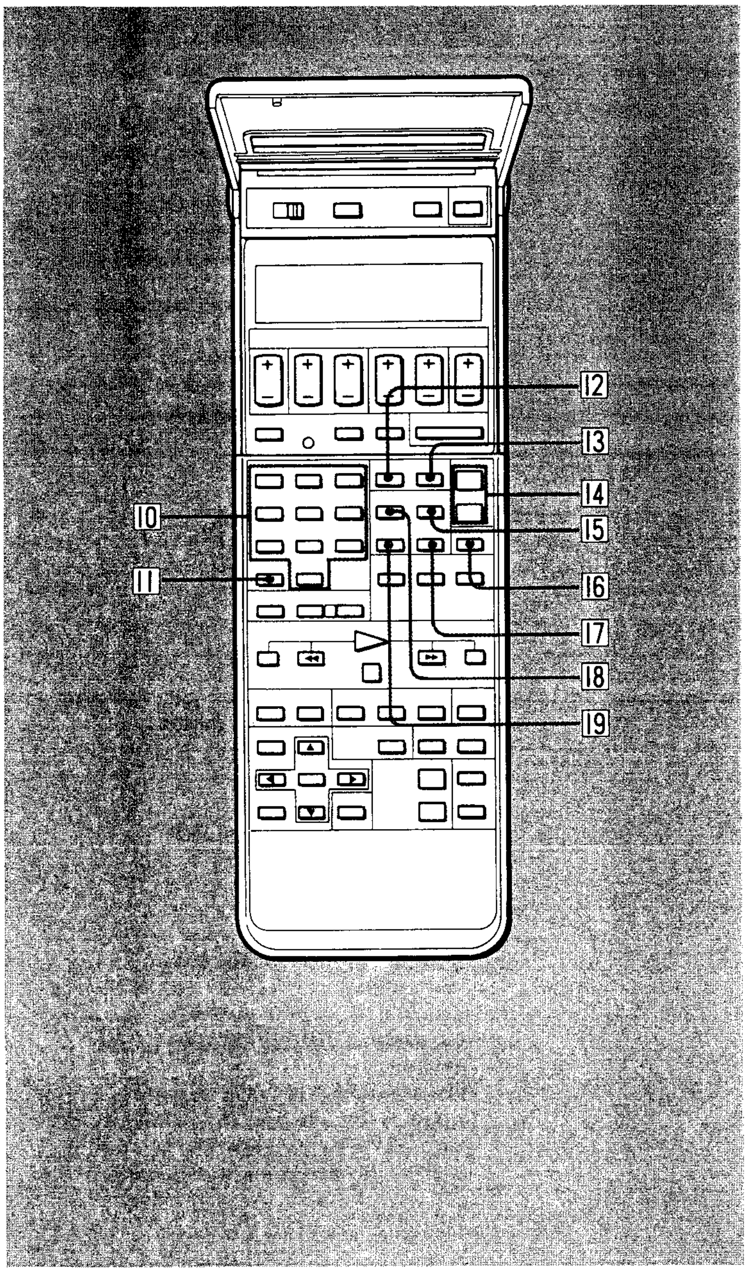
6 **⏻ (on/standby) button**

7 **Timer recording/clock set buttons**
❶ DAY
❷ TURN ON time
❸ TURN OFF time
❹ PROG (programme position)
❺ TRANSMIT

8 **MEMORY button**

9 **CLOCK SET (SET/START) button**

Note on the TV / VTR remote control selector
When you set the TV / VTR remote control selector on the Remote Commander to TV, the TV/VTR button and/or the –/–– (10's digit) button cannot operate some Sony TV's.



10 **Programme position number buttons**
Press to select the programme position directly. To enter single digit numbers, press 0 and then the desired number.

11 **-/-- (10's digit) button**
Press to select a programme position number over 9.
To select 23, press -/--, then 2 and 3.

12 **INPUT SELECT button**
Open the cover to select the input signal for timer recording. Close the cover to change the current input setting.

13 **REC MODE select button**

14 **PROG (programme) +/- buttons**

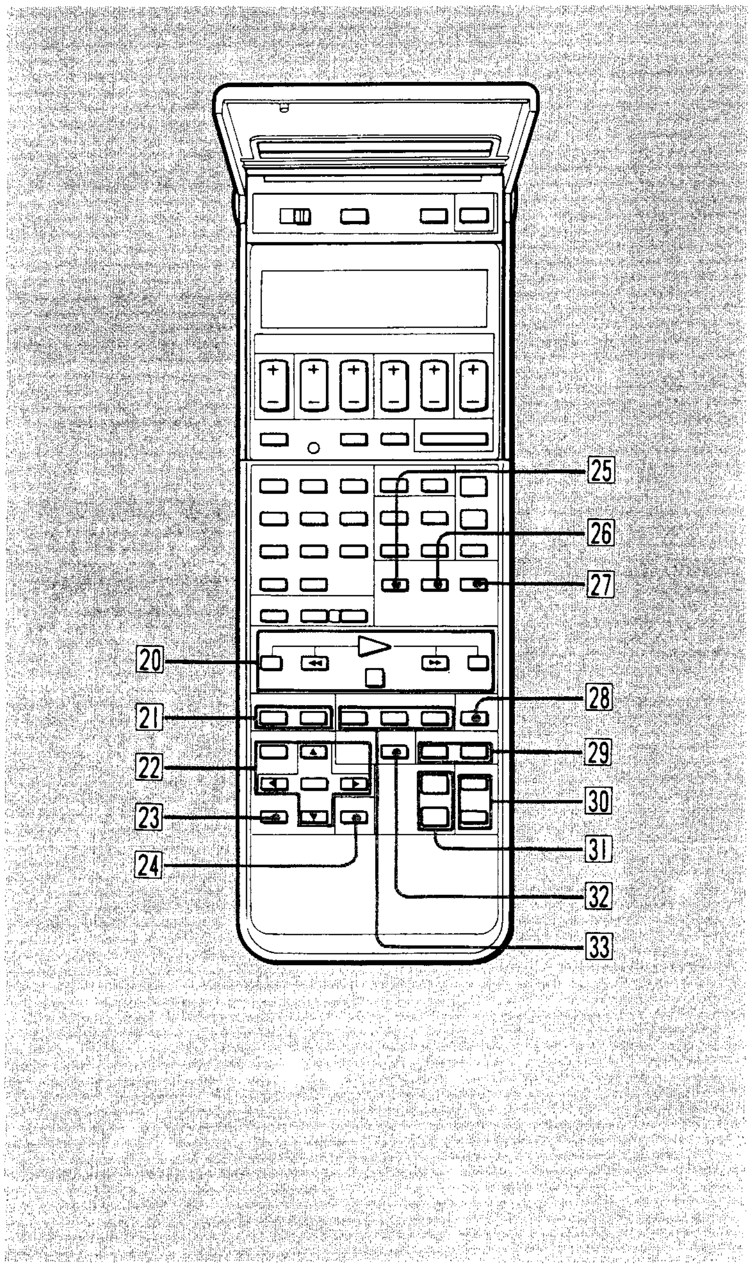
15 **MAIN/SUB button**

16 **INDEX button**

17 **COUNTER RESET button**

18 **DATA SCREEN button**

19 **EDIT MONITOR button**



20 **Basic operational buttons**
II PAUSE button
● REC (recording) buttons
◀◀/▶▶ SEARCH button
▷ PLAY
◀◀ REW (rewind)
▶▶ FF (fast-forward)
■ STOP

21 **SHUTTLE EDIT </> buttons**

22 **Menu operation buttons**
MENU
EXECUTE
Cursor shift buttons ▲/▼/◀/▶

23 **FUNCTION MEMORY button**

24 **TIMER ON SCREEN button**

25 **II ▶ FRAME button**

26 **X1/5 button**

27 **X2 button**
When this buttton is pressed, the playback sound will automatically be changed to monaural, even though the STEREO indicator will be turned on in the display window.

28 **TV SCAN button**

29 **INDEX MARK and ERASE button**

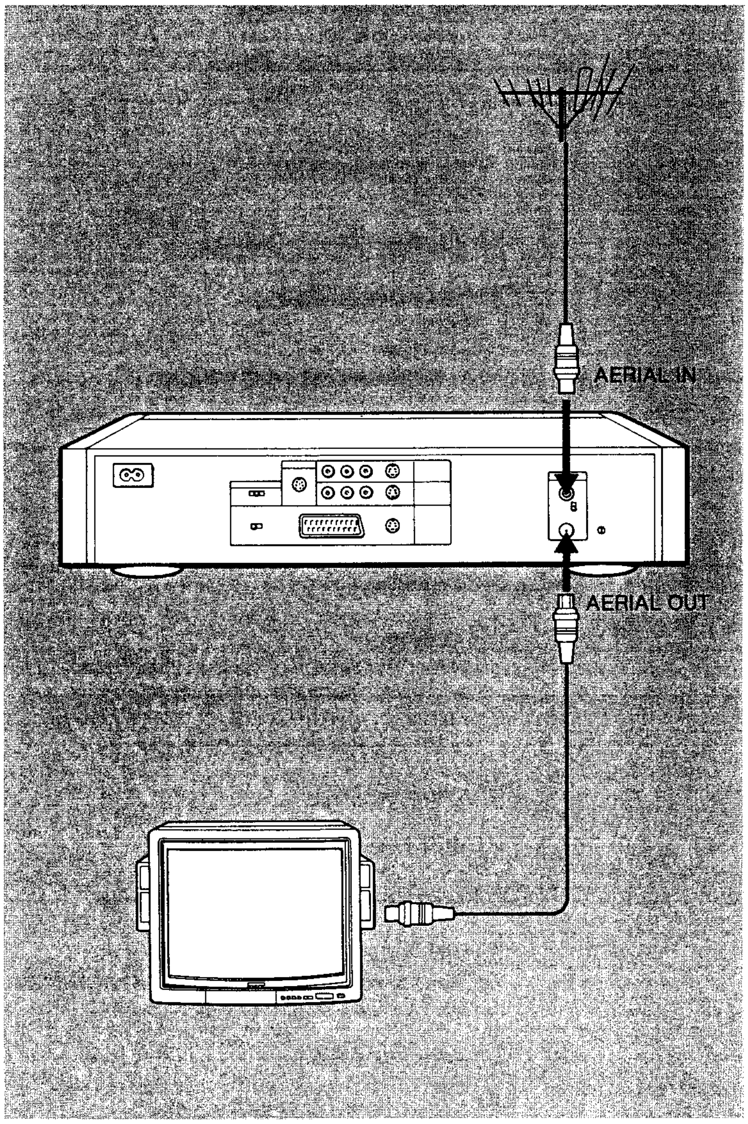
30 **TIMER CHECK/TIMER CLEAR buttons**

31 **VOL (TV volume) + / – buttons**
Press to control the volume of the TV. Effective only for Sony TVs with the ▣ mark.

32 **AUDIO DUB button**

33 **P in P (picture in picture) buttons**

Connections

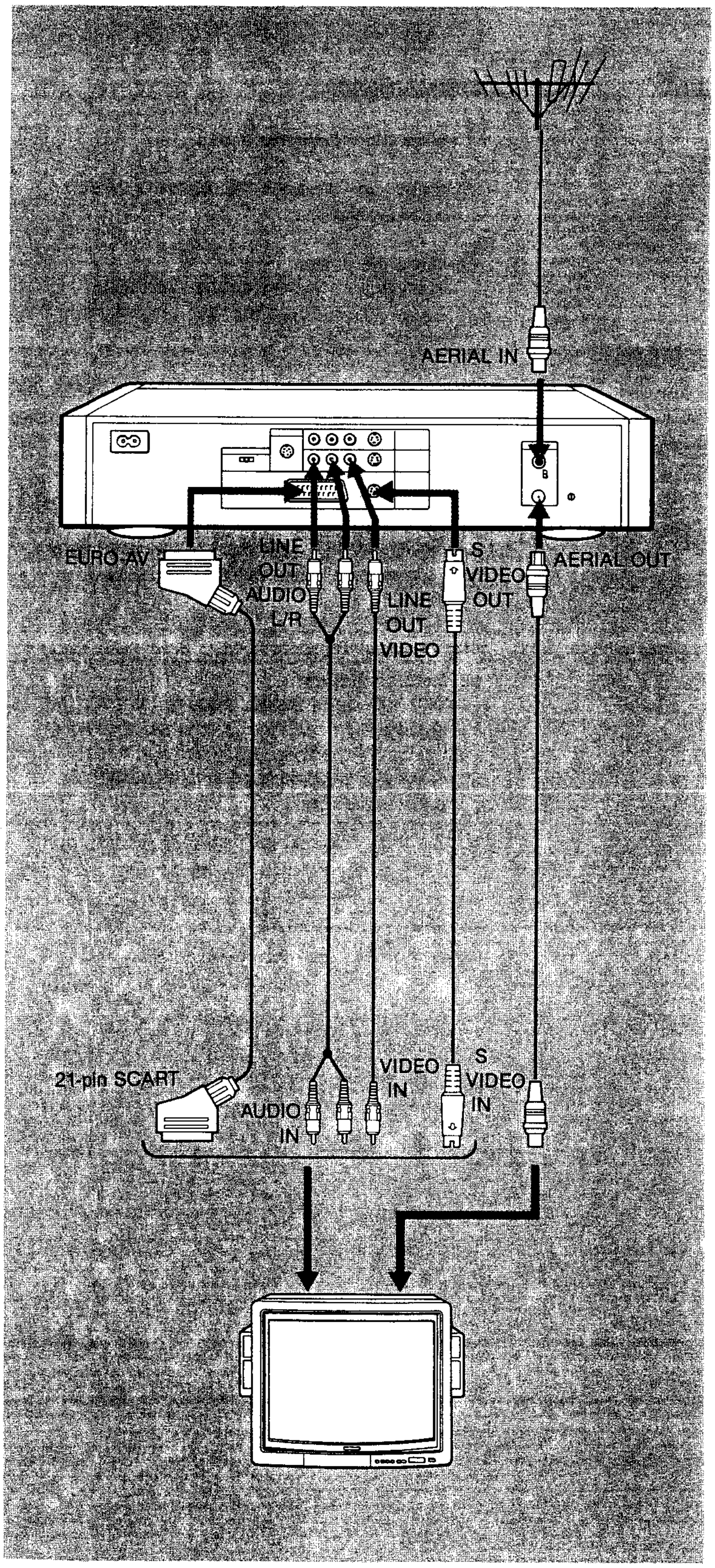


Before You Begin

- Turn off the power to the unit and TV.
- Do not connect the mains lead until all of the other connections are complete.
- Connect firmly as a loose connection may cause picture distortion.

To Connect a TV without Audio/video Inputs

1. **Remove the aerial cable on the TV from its socket.**
2. **Connect the aerial cable to AERIAL IN on the VTR.**
3. **Connect the aerial input of the TV to AERIAL OUT on the VTR using the supplied cable.**



To Connect a TV with Audio/video Inputs

Connections using the audio/video inputs on the TV provide a better quality playback picture.

If your TV is equipped with an EURO-AV connector

1. **Follow steps 1 to 3 in "To Connect a TV without Audio/video Inputs."**
2. **Connect LINE OUT AUDIO/MONITOR OUT EURO-AV of the VTR to the audio input/ EURO-AV on the TV with an optional cable.**
3. **Set the VIDEO OUT (VIDEO or S VIDEO) selector on the rear panel to S VIDEO to view the picture of the Luminance and Chrominance separated signal, i.e. the same as the video signal output from the S VIDEO connector. Set it to VIDEO to output standard video signals.**

If your TV is equipped with S VIDEO input connector

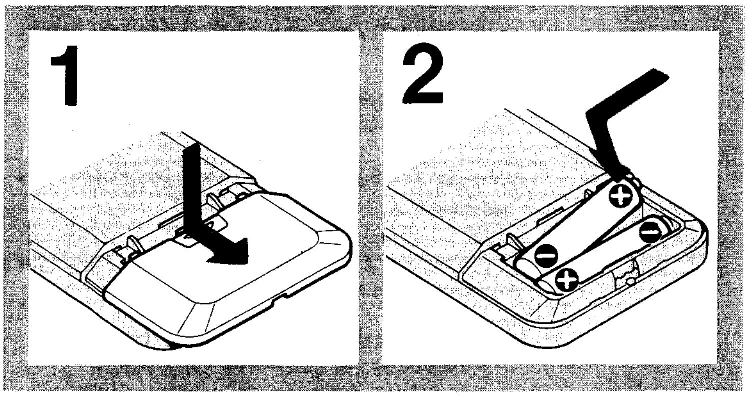
1. **Follow steps 1 to 3 in "To Connect a TV without Audio/video Inputs."**
2. **Connect LINE OUT AUDIO/MONITOR OUT S VIDEO of the VTR to the AUDIO/S VIDEO input on the TV with the supplied cable.**

If your TV is equipped with audio/video input jacks

1. **Follow steps 1 to 3 in "To Connect a TV without Audio/video Inputs."**
2. **Connect LINE OUT AUDIO/VIDEO jacks on the VTR to the audio/video input jacks on the TV.**

Notes
- If this VTR is connected to a TV or monitor which does not have S VIDEO input, and the VIDEO OUT (VIDEO or S VIDEO) selector is set to S VIDEO, picture will be displayed on the screen but without colour.
- Avoid making VIDEO and S VIDEO connections at the same time.
- The on-screen display will not be output to the TV if connection is made via LINE OUT AUDIO/VIDEO jacks.

Remote Control Operation



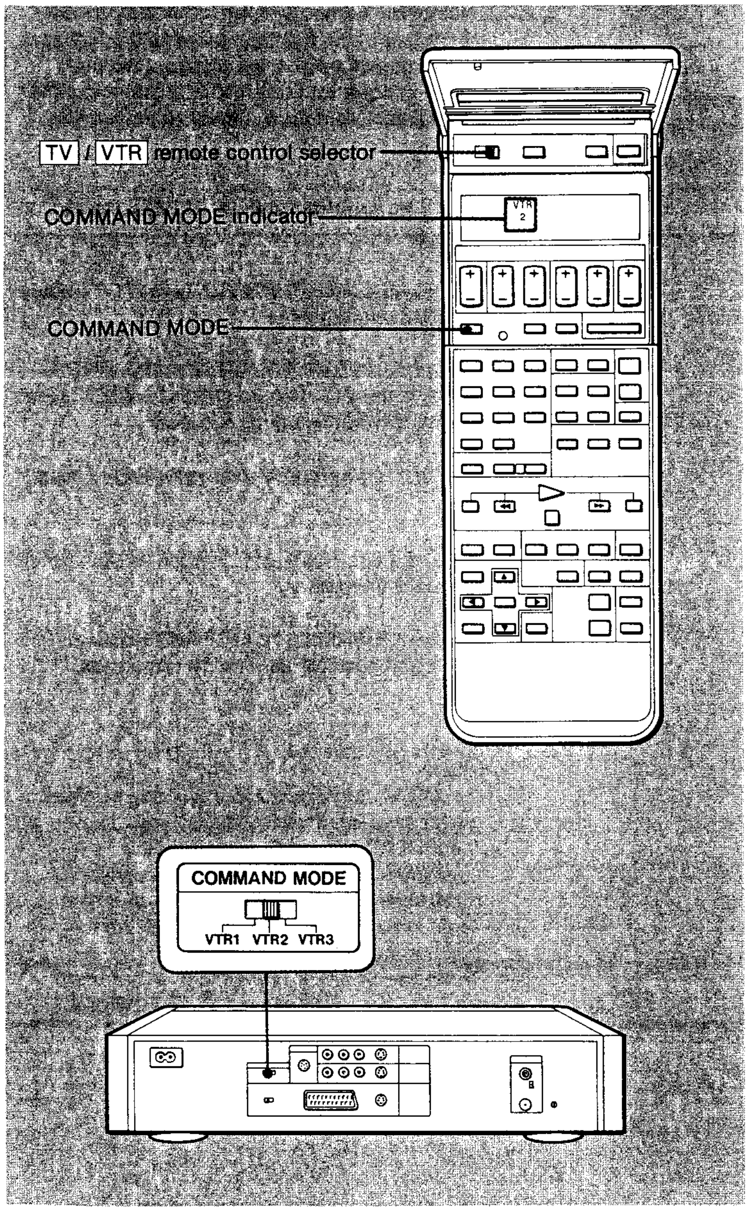
Preparing the Commander

Battery insertion

1 **Slide and remove the cover.**

2 **Insert two R6 (size AA) batteries with the correct polarity.**

3 **Close the cover.**
The clock on the Commander will read – D –:– – –. Set the date and clock referring to "Date and Clock Setting."


TV / VTR remote control selector
COMMAND MODE indicator
VTR 2
COMMAND MODE
COMMAND MODE
VTR1 VTR2 VTR3

Command mode setting

Set the COMMAND MODE selector on the rear of this VTR to the same number displayed in the LCD display.
Normally set to VTR 2. To change the setting on the Commander, press COMMAND MODE repeatedly.

Note on batteries
With normal operation, batteries will last for about six months. If the Commander will not be used for a long period, remove the batteries to avoid possible damage from battery leakage.

Remotely Controlling Other Sony Equipment

Controlling another VTR equipped with a command mode selector

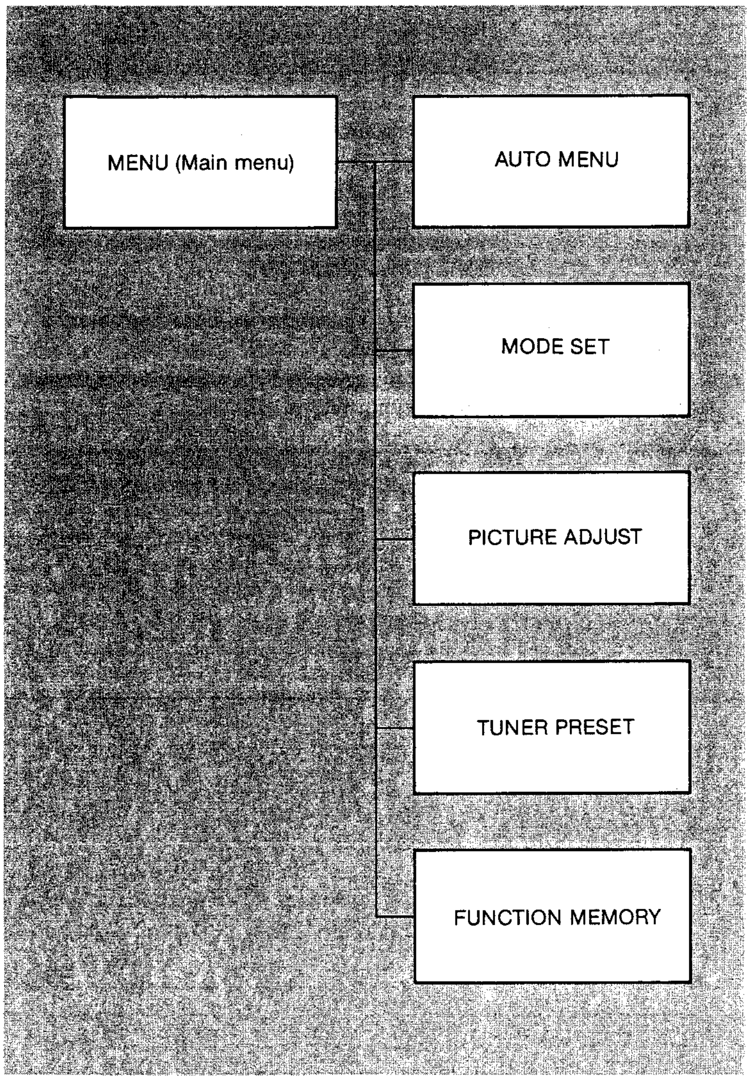
Set different command modes for this VTR (VTR 2, for instance) and the other VTR (VTR 1). Select VTR 1 on the Commander to control the other VTR and VTR 2 to control this VTR.

Controlling equipment without a command mode selector

Change the setting on the Commander as follows to control each type of VTR.

VTR 1: Sony Betamax infrared remote control VTRs
VTR 2: Sony 8 mm infrared remote control VTRs
VTR 3: Sony VHS infrared remote control VTRs

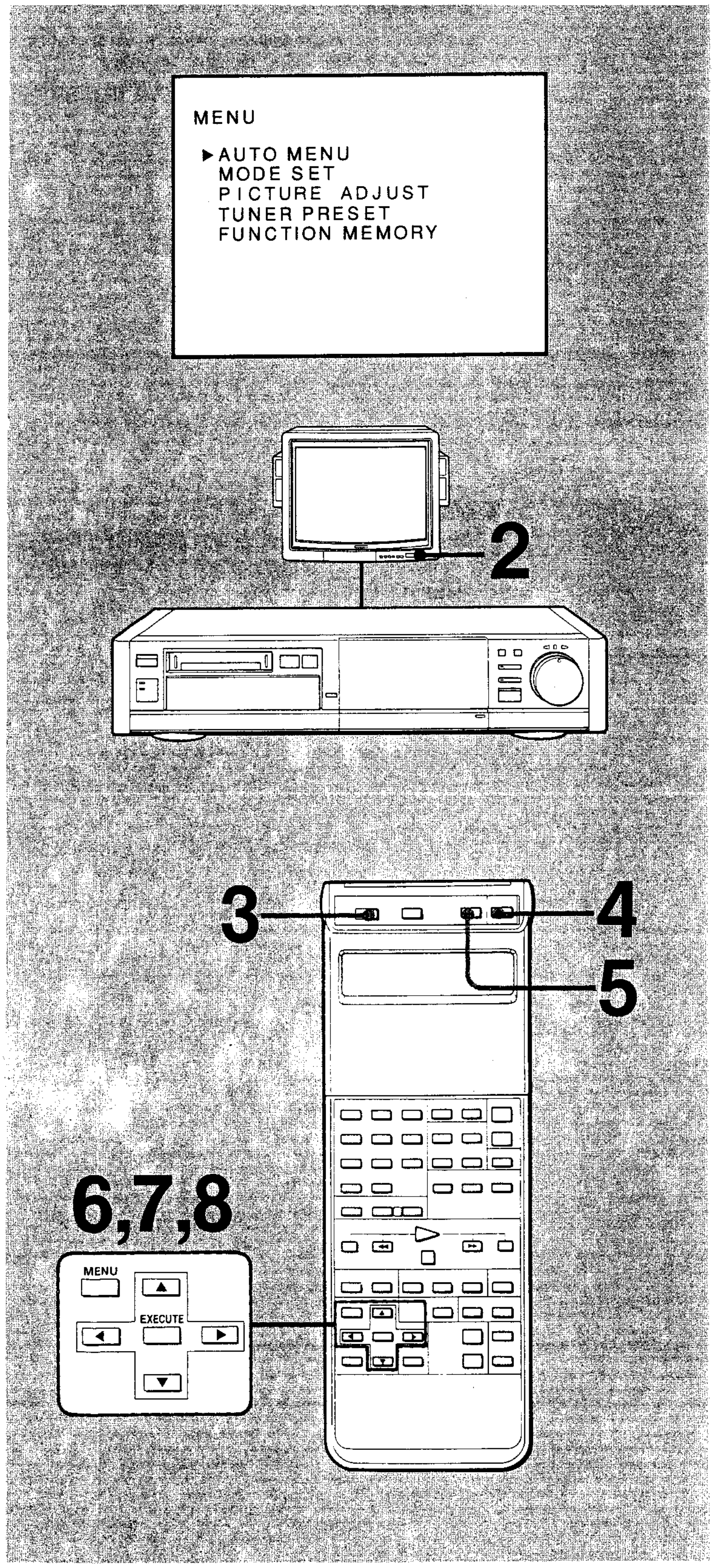
The Menu System


MENU (Main menu)
AUTO MENU
MODE SET
PICTURE ADJUST
TUNER PRESET
FUNCTION MEMORY

Overview

This VTR employs a menu system in which various settings and adjustments necessary for operation can be made. The menu system of this VTR consists of five different menu displays which can be selected from the main MENU.

Refer to the following pages for the details of each menu.



To Call Up the Menu Display

1 **Check that the VTR and the TV are connected properly.**
Connect the VTR and the TV using the AERIAL OUT socket, MONITOR OUT EURO-AV connector, or the MONITOR OUT S VIDEO connector on the VTR referring to "Connections."

2 **Turn on the TV.**
Select the programme position for VTR playback if connection is made using the AERIAL OUT socket on the VTR. Select VTR input if connection is made using the MONITOR OUT EURO-AV or S VIDEO connector.

3 **Set the TV/VTR remote control selector to VTR.**

4 **Press ON/STANDBY.**

5 **Press TV/VTR to turn on the VTR indicator.**
When connection is made via the AERIAL OUT socket on the VTR.

6 **Press MENU.**
The main MENU will appear on the screen.

7 **Select the desired menu by moving the cursor.**
Press ▲ to go up, and ▼ to go down.

8 **Press EXECUTE.**
The selected menu will appear on the TV screen.

To erase the menu display

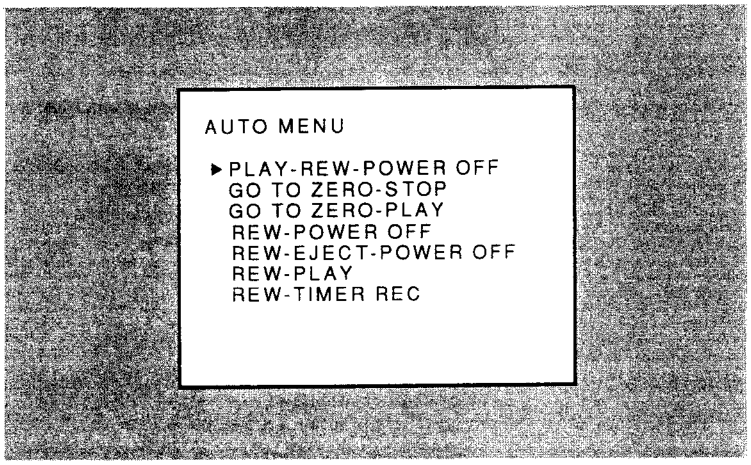
Press MENU again.

Note

The menu display will not be output to the TV screen if connection is made via the LINE OUT S VIDEO connector or LINE OUT VIDEO jacks.

AUTO MENU

The VTR can be set to enter the desired operational sequence. For the actual operation, refer to "Assigning a Desired Operation Mode" on page 45.

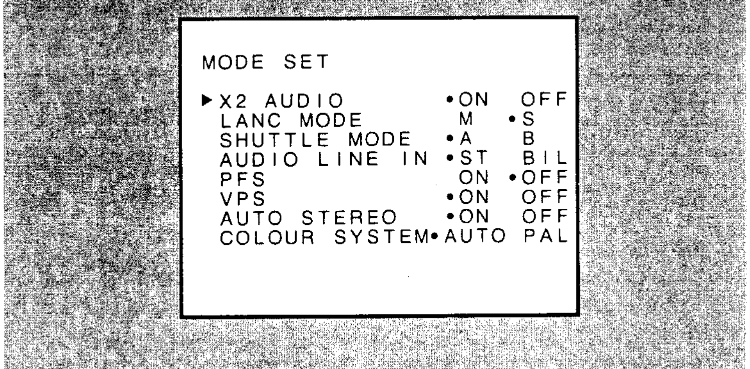


```
AUTO MENU

▶PLAY-REW-POWER OFF
 GO TO ZERO-STOP
 GO TO ZERO-PLAY
 REW-POWER OFF
 REW-EJECT-POWER OFF
 REW-PLAY
 REW-TIMER REC
```

MODE SET

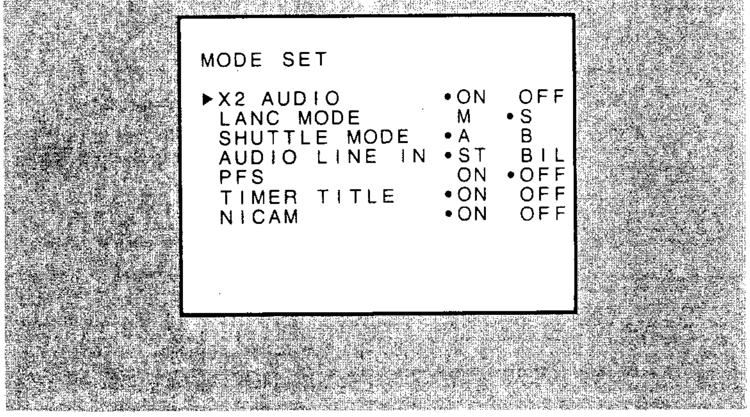
Various mode settings can be made in this menu. For details of each setting, refer to "Mode Setting" on page 30.

EV-S1000E



```
MODE SET

▶X2 AUDIO          •ON   OFF
 LANC MODE          M   •S
 SHUTTLE MODE      •A    B
 AUDIO LINE IN     •ST   BIL
 PFS                ON  •OFF
 VPS               •ON   OFF
 AUTO STEREO       •ON   OFF
 COLOUR SYSTEM•AUTO      PAL
```

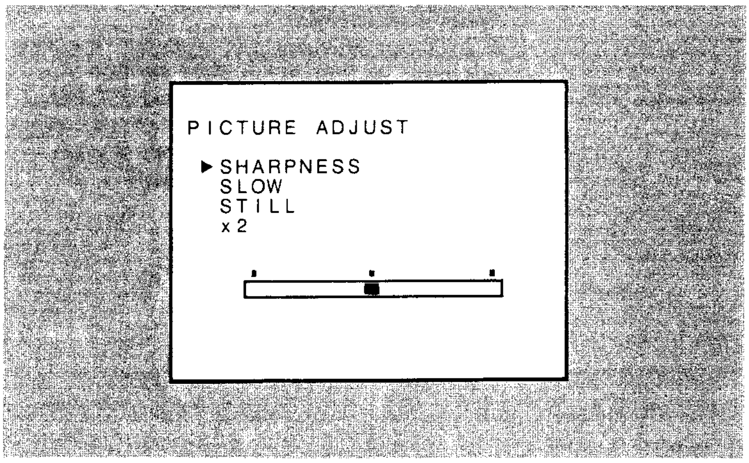
EV-S1000E (UK)



```
MODE SET

▶X2 AUDIO          •ON   OFF
 LANC MODE          M   •S
 SHUTTLE MODE      •A    B
 AUDIO LINE IN     •ST   BIL
 PFS                ON  •OFF
 TIMER TITLE       •ON   OFF
 NICAM             •ON   OFF
```

PICTURE ADJUST

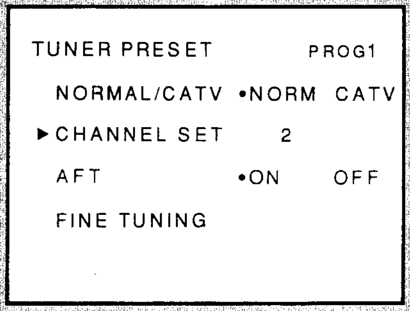
The playback picture can be adjusted to obtain maximum quality in this menu. Refer to "Picture Adjustments" on page 40.


```
PICTURE ADJUST

▶SHARPNESS
 SLOW
 STILL
 x2
```

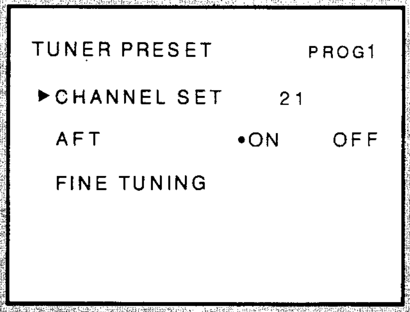
TUNER PRESET

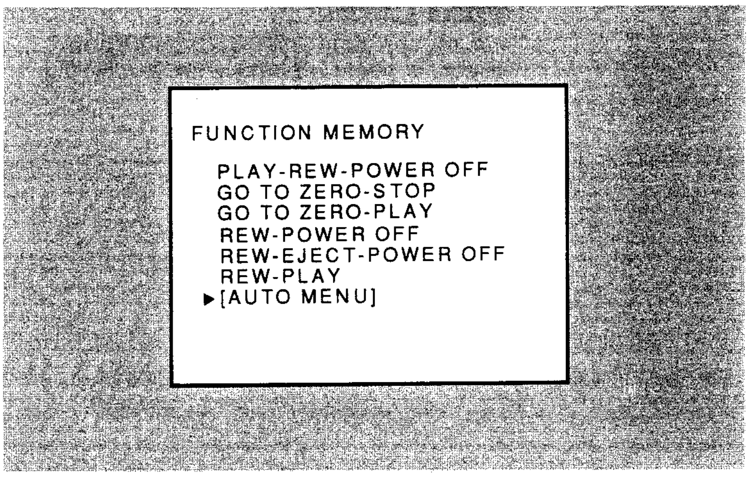
Presetting of the active channels and fine tuning of a weak station can be performed in this menu. For the actual operation, refer to the "Presetting the Active Channels" on page 26.

EV-S1000E


```
TUNER PRESET          PROG1

 NORMAL/CATV  •NORM  CATV
▶CHANNEL SET    2
 AFT          •ON    OFF
 FINE TUNING
```

EV-S1000E (UK)

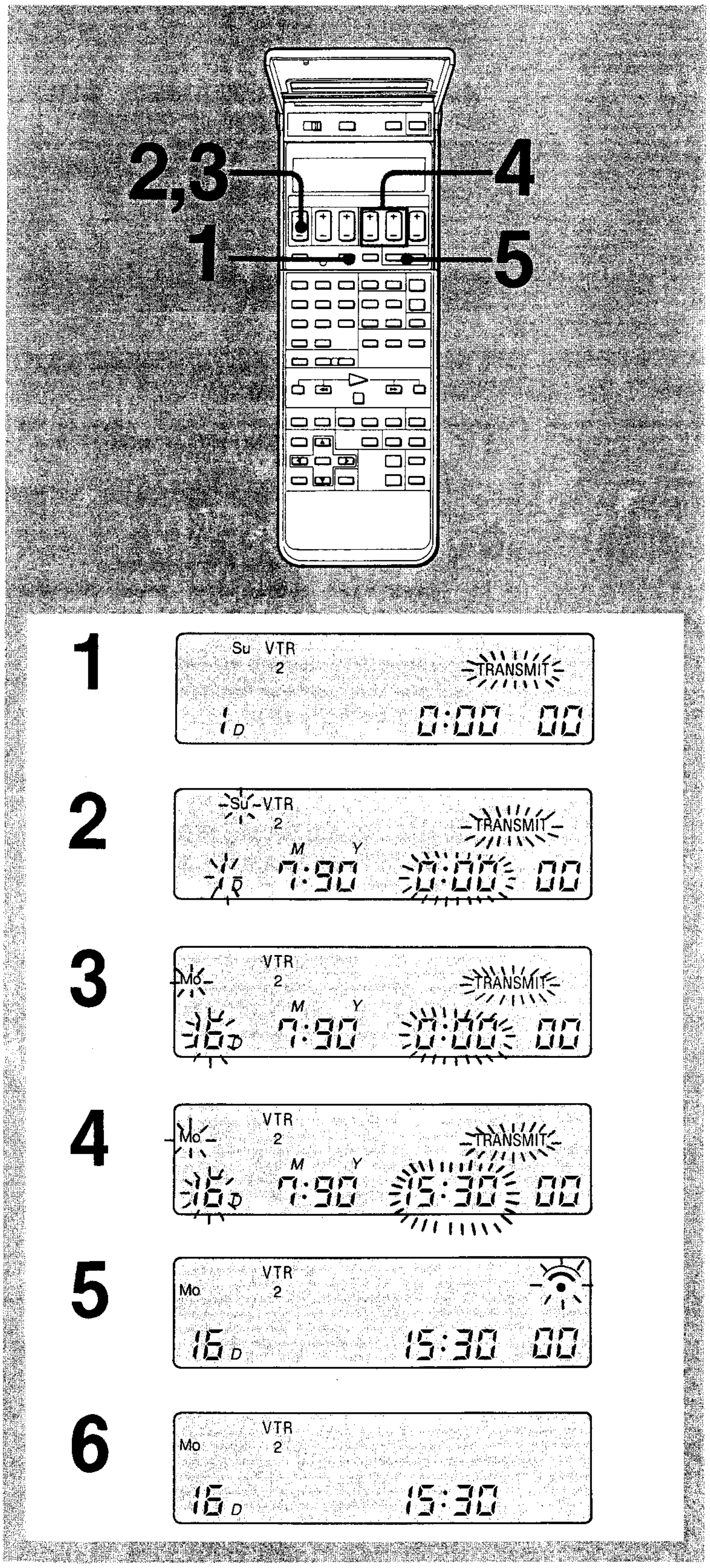

```
TUNER PRESET          PROG1

▶CHANNEL SET   21
 AFT          •ON    OFF
 FINE TUNING
```


FUNCTION MEMORY
PLAY-REW-POWER OFF
GO TO ZERO-STOP
GO TO ZERO-PLAY
REW-POWER OFF
REW-EJECT-POWER OFF
REW-PLAY
▶[AUTO MENU]

FUNCTION MEMORY

A desired operational sequence of the VTR can be assigned to the FUNCTION MEMORY button on the Commander. With a press of the FUNCTION MEMORY button, the selected sequence will begin. Refer to "Assigning an Auto Menu Mode to the FUNCTION MEMORY Button" on page 47.

Date and Clock Setting


2,3
4
1
5
1
Su VTR 2 TRANSMIT 1 D 0:00 00
2
Su VTR 2 TRANSMIT M Y 1 D 7:90 0:00 00
3
Mo VTR 2 TRANSMIT M Y 16 D 7:90 0:00 00
4
Mo VTR 2 TRANSMIT M Y 16 D 7:90 15:30 00
5
Mo VTR 2 16 D 15:30 00
6
Mo VTR 2 16 D 15:30

Before You Begin

The time and date between the years 1990 and 2004 can be set with the Commander.

Operation

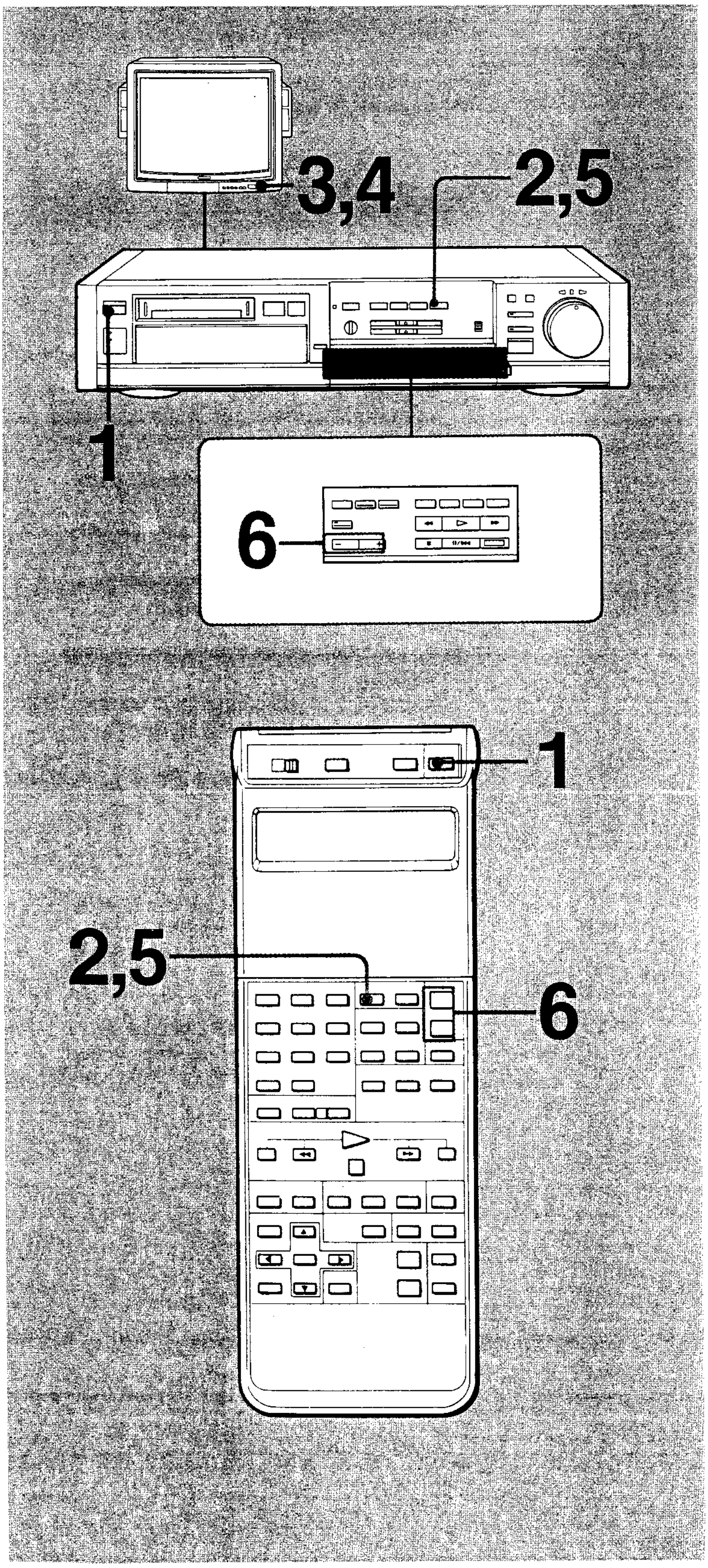
Example: To set to 15:30, Monday, July 16, 1990.

1. **Open the cover and press CLOCK SET.**
2. **Press the D (day) button until 7 M 90 Y is displayed.**
   The day will be advanced slowly up to 30 days ahead and then the month will be advanced.
3. **Press the + side or – side of the D (day) button until 16 D is displayed.**
   The day of the week appears automatically.
4. **Press the H (hour) and M (minute) buttons under TURN OFF to set to 15:30.**
5. **Point the Commander at the VTR and press TRANSMIT.**
   A beep sound confirms that the date and clock setting is registered in the VTR as well.
6. **Check the display window on the unit and close the cover.**

When 0:00 is blinking on the unit
Any time power is interrupted for more than one hour, you will see 0:00 blinking when power is restored. You will have to re-set the date and clock again.

When a short beep sounds repeatedly
The VTR is in the timer recording or quick timer recording mode and the setting cannot be transmitted.

Adjusting the TV



Before You Begin

If you have connected your VTR and TV using the AERIAL OUT on the VTR, one of the television programme positions must be adjusted to receive the VTR's playback signal. If TV — VTR connection is made by other means, skip this step.

Operation

1 **Make connections referring to "Connections" and press ON/STANDBY.**

2 **Press INPUT SELECT to light LINE L2 in the display window.**
Do not connect any equipment to the LINE IN 2 VIDEO jack.

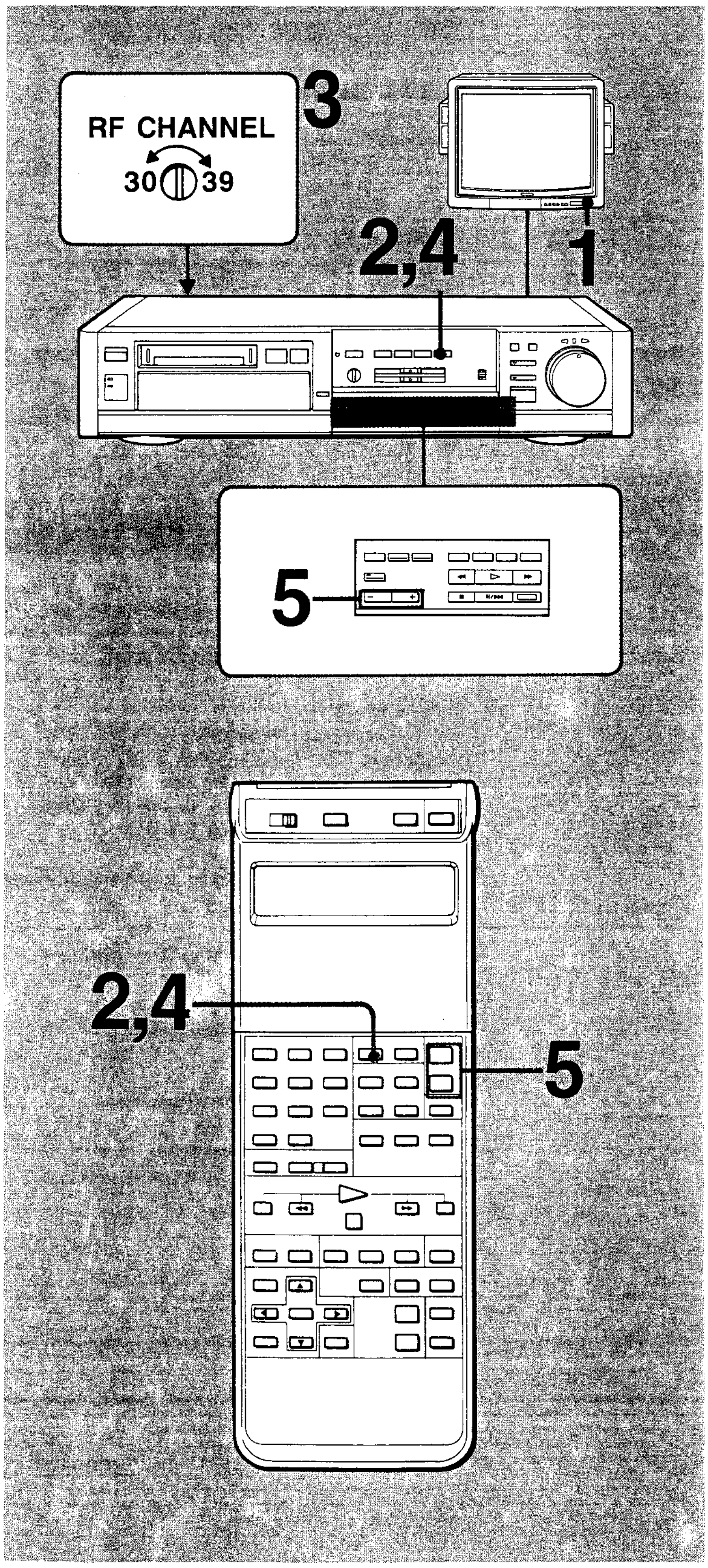
3 **Turn on the TV and select a programme position that is not used to receive a TV station.**

4 **Tune the TV so that a blue screen with time counter and tape speed indication is clearly seen on the TV screen.**

5 **Press INPUT SELECT to light TUNER in the display window.**

6 **Press the PROG (PROGRAM) + / – and check that the screen changes to a different programme.**

Now your TV is tuned to receive the VTR's playback picture. Whenever playing back a tape, select the programme position you chose in step 3. If you are not sure how to tune your TV, refer to the TV's instruction manual or consult your dealer.



When the Playback Picture is not Free of Disturbance

1 **Select a programme position on the TV between UHF channels 30 and 39, so that the TV shows no picture and a steady rustling sound or no sound is heard.**

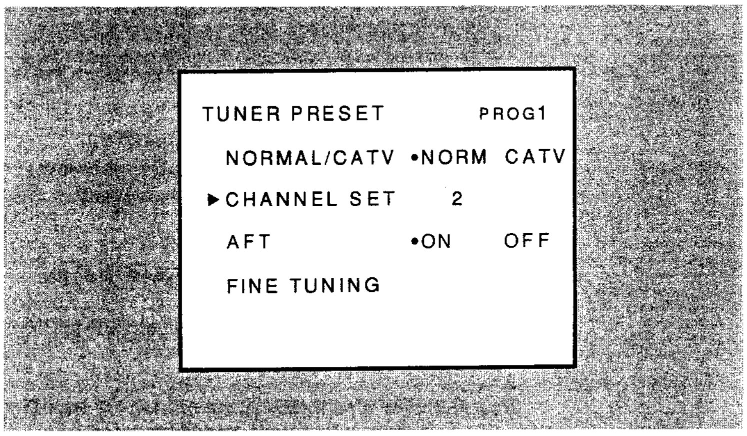
2 **Press INPUT SELECT to light LINE L2 in the display window.**
Do not connect any equipment to the LINE IN 2 VIDEO jack.

3 **Turn the RF CHANNEL screw with the supplied screwdriver until an undistorted screen is obtained.**

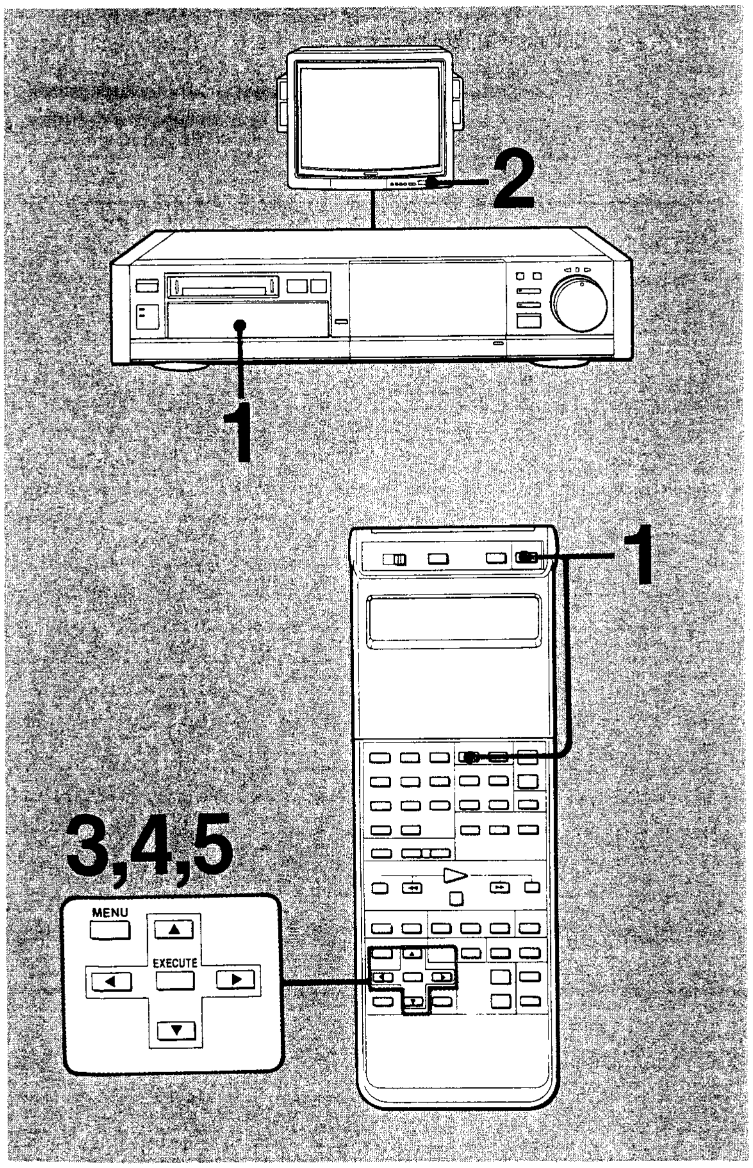
4 **Press INPUT SELECT to light TUNER in the display window.**

5 **Press PROG (PROGRAM) + / – and check that the screen changes to a different programme.**

Presetting the Active Channels



```
TUNER PRESET           PROG1
  NORMAL/CATV    •NORM   CATV
▶CHANNEL SET      2
  AFT             •ON     OFF
  FINE TUNING
```



Before You Begin

- Your VTR is capable of receiving the following channels:
  EV-S1000E: VHF channels E2 — E4, E5 — E12, UHF channels E21 — E69, and cable TV channels S01 — S03, S1 — S20 and S21 — S41
  EV-S1000E (UK): UHF channels B21 — B68
- The receivable channels are governed by the TV broadcasting system in your area.
- Up to 60 channels can be allocated to any desired programme position.
- The TUNER PRESET menu can be displayed only when VTR — TV connection is made via the AERIAL OUT socket on the VTR, the MONITOR OUT EURO-AV or S VIDEO.

To Call Up the TUNER PRESET Menu

1 **Turn on the VTR and press INPUT SELECT to light the TUNER indicator and the programme position number in the display window.**

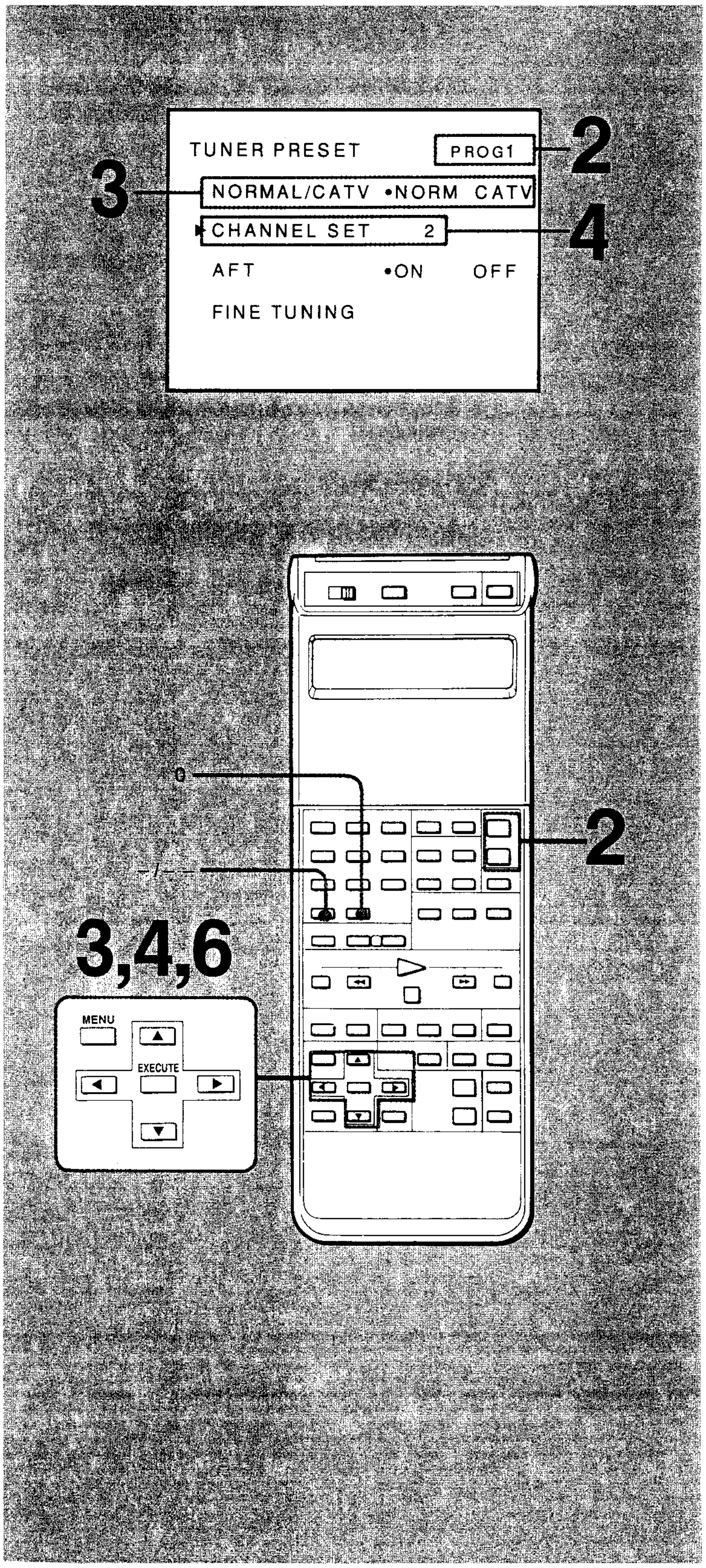
2 **Turn on the TV.**
Set to the programme position for the VTR playback if VTR — TV connection is made via the AERIAL OUT socket on the VTR. Select VTR input if VTR — TV connection is made via MONITOR OUT EURO-AV or S VIDEO.

3 **Press MENU while the VTR is in the stop mode.**
The main MENU appears.

4 **Move cursor with ▲ or ▼ to TUNER PRESET.**

5 **Press EXECUTE.**
The TUNER PRESET menu appears.

Note for the users of EV-S1000E (UK)
The TUNER PRESET menu of the EV-S1000E (UK) does not have the NORMAL/CATV selection which is shown in the illustration.



Tuning a Desired Channel

[For EV-S1000E (UK), skip step 2.]

1. **Call up the TUNER PRESET menu.**
2. **Select the desired programme position by pressing PROG (PROGRAM) +/–.**
3. **Move cursor to NORMAL/CATV with ▲ or ▼. Select NORM to receive normal programmes and CATV to receive CATV programmes with ◀ or ▶.**
4. **Move cursor to CHANNEL SET with ▲ or ▼ and keep pressing ◀ or ▶.**
   The channel number automatically increases with ▶ and decreases with ◀. The number stops changing when the first channel received in your area is detected and that channel will be displayed.
5. **To allocate a channel to the next programme position, repeat steps 2 to 4.**
6. **Press EXECUTE to store the allocated channels and return to original screen.**

To Allocate the Channels Directly

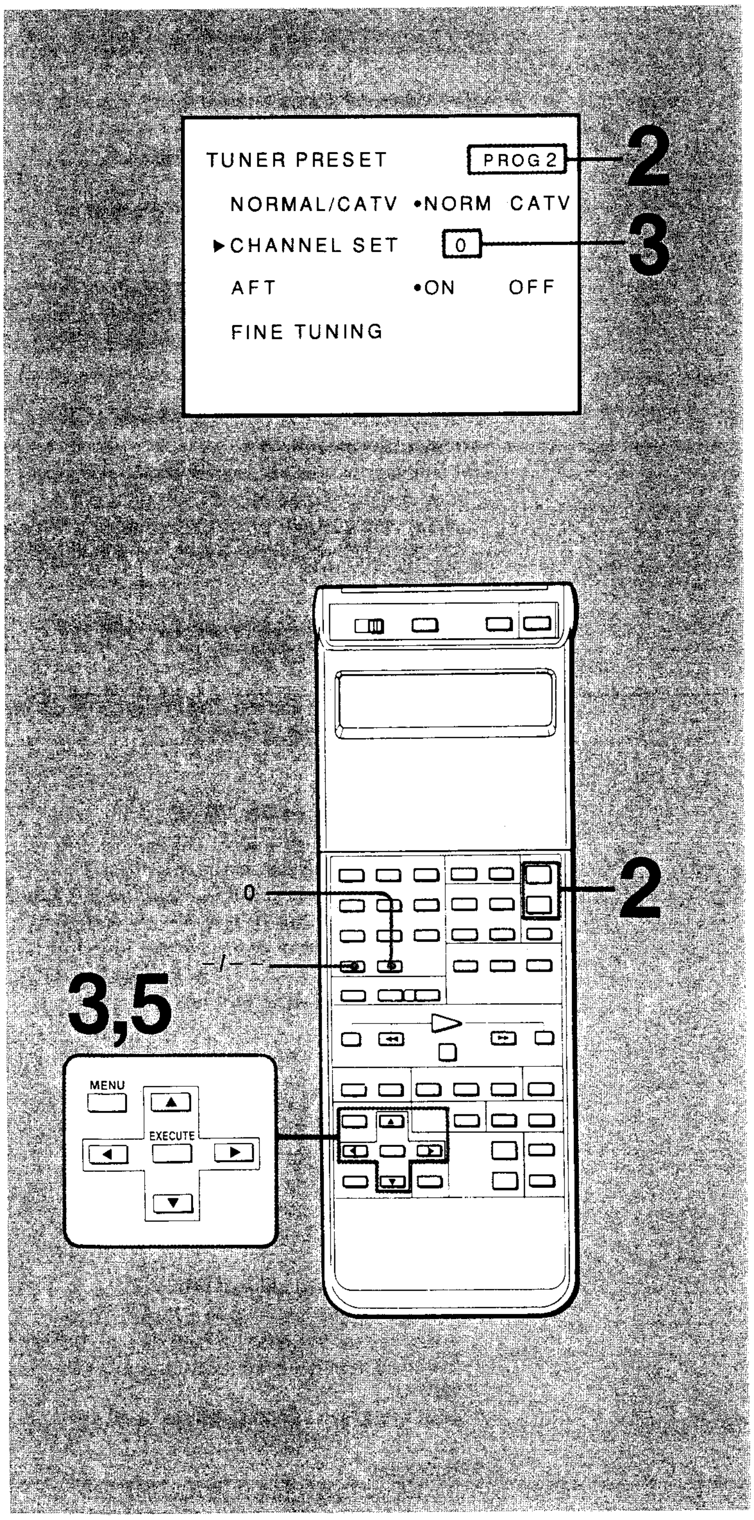
In step **4** in "Tuning a Desired Channel," set the cursor to CHANNEL SET. Enter the desired programme numbers using the programme position number and –/–– buttons. To enter one's digits, press 0 and then the desired number. To enter two-digit numbers, press –/––, the ten's digit number, and lastly the one's digit number.

Note

If the picture displayed on the screen in step 4 is so distorted that you cannot identify the menu operation screen, first pull out the aerial cable from the AERIAL IN socket, next repeat step 4, then return the aerial cable to the AERIAL IN socket.

Channel scanning on your VTR

- When ▶ is pressed in steps **4** and **5**, the channels are scanned in the following order. When ◀ is pressed the scanning order is reversed.
  VHF (E2-E12) → UHF (E21-E69) → CATV (S1-S20) → HYPER BAND (S21-S41) → CATV (S01-S05).
- The EV-S1000E (UK) only scans UHF channels B21 to B68.
- In Italy, channels 13 to 20 correspond to channels A to H.


TUNER PRESET
PROG 2
2
NORMAL/CATV •NORM CATV
▶CHANNEL SET
0
3
AFT •ON OFF
FINE TUNING
0
2
-/--
3,5
MENU
EXECUTE

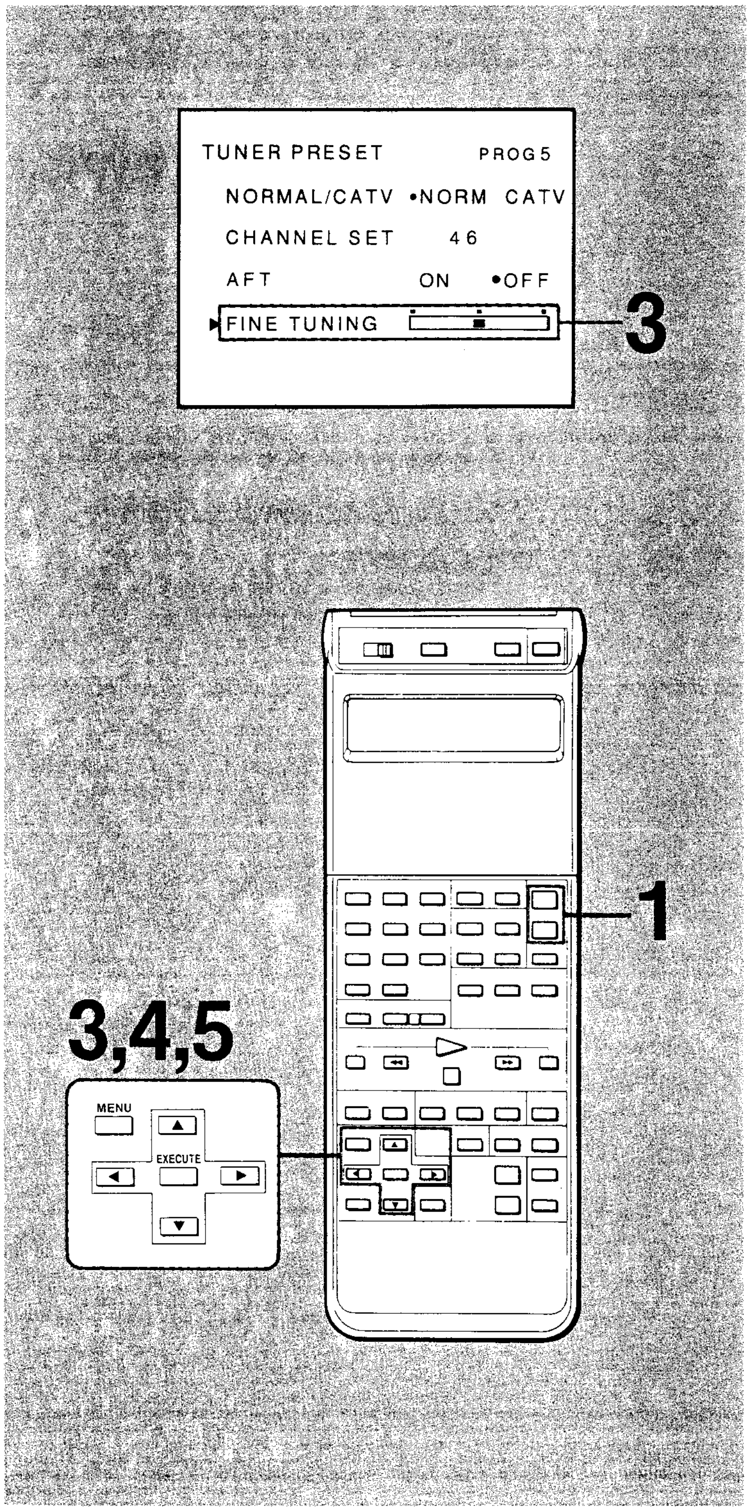
Erasing Unwanted Programme Positions

The VTR can be preset so that only the desired programme positions will appear when you press PROG (PROGRAM) +/–.

1. **Call up the TUNER PRESET menu.**
2. **Press PROG (PROGRAM) +/– to call up the unused programme position.**
3. **Press –/– – and then 0 or keep pressing ◀ or ▶ until 0 is displayed.**
4. **Repeat steps 2 and 3 to erase other programme positions.**
5. **Press EXECUTE.**

To enter the erased programme positions again

Follow the procedure in "Tuning a Desired Channel."



TUNER PRESET PROG5

NORMAL/CATV •NORM CATV

CHANNEL SET 46

AFT ON •OFF

▶FINE TUNING

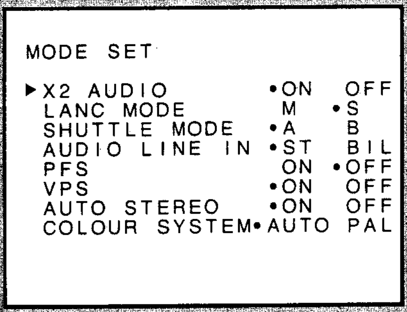
Manually Fine-tuning a Weak Station

If AFT ON is selected in the TUNER PRESET menu, the VTR automatically tunes the received channels. However, when the programme received on the VTR is distorted due to signal interference, manual fine tuning may solve the problem.

1. **Select the distorted programme position by pressing PROG (PROGRAM) + / –.**
2. **Call up the TUNER PRESET menu.**
3. **Move cursor to FINE TUNING.**
4. **Press ◀ or ▶ until the best picture is obtained.** AFT OFF will be automatically selected. The fine tuning meter appears.
5. **Press EXECUTE to store that position and return to the original screen.**

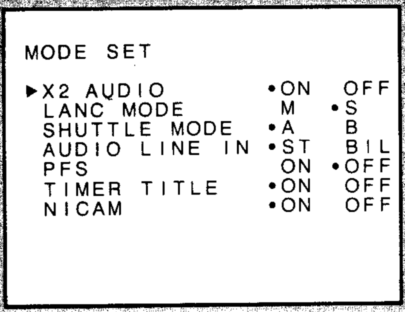
Mode Setting

EV-S1000E

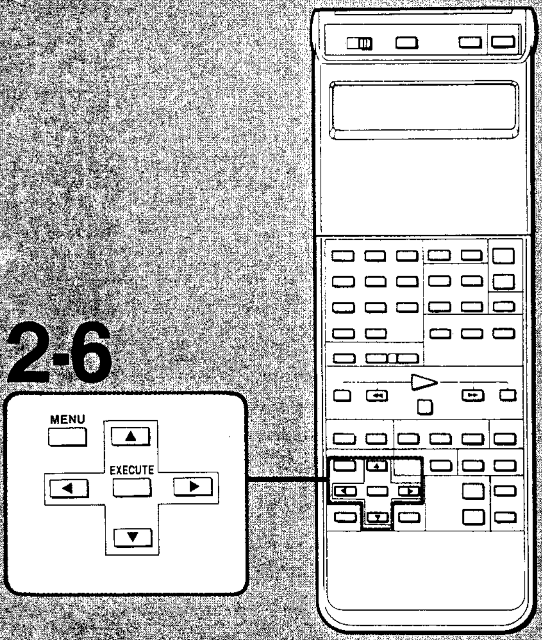


```
MODE SET

▶X2 AUDIO          •ON   OFF
 LANC MODE          M   •S
 SHUTTLE MODE      •A    B
 AUDIO LINE IN     •ST   BIL
 PFS                ON  •OFF
 VPS               •ON   OFF
 AUTO STEREO       •ON   OFF
 COLOUR SYSTEM•AUTO  PAL
```

EV-S1000E (UK)



```
MODE SET

▶X2 AUDIO          •ON   OFF
 LANC MODE          M   •S
 SHUTTLE MODE      •A    B
 AUDIO LINE IN     •ST   BIL
 PFS                ON  •OFF
 TIMER TITLE       •ON   OFF
 NICAM             •ON   OFF
```



Check the setting in the MODE SET menu before operating this VTR. Make changes depending upon the features you wish to enjoy on this VTR.

Operation

1. **Press MENU.**
   The main MENU appears.
2. **Move cursor by using ▲ or ▼ to MODE SET.**
3. **Press EXECUTE.**
   The MODE SET menu appears.
4. **Select the mode to be set by using ▲ or ▼.**
5. **Select the desired mode by using ◀ or ▶.**
6. **Press EXECUTE.**
   The selected mode will be stored and the MODE SET menu will be erased.

Details of the MODE SET Menu

X2 AUDIO ON/OFF

Select ON if you wish to hear the sound during ×2 speed playback. The playback sound will automatically be switched to monaural. Select OFF if you do not wish to hear the sound during ×2 speed playback.

LANC MODE M/S

This selection is necessary when remotely controlling other video equipment with this VTR, or when controlling this VTR with other video equipment via the CONTROL L connector. Select M to control other video equipment with this VTR. Select S to control this VTR with other video equipment.

Note that the VTR will automatically enter the LANC MODE M mode in the following cases:
1) When the PLAYER control button is pressed and the button is turned on.
2) When the EDIT STANDBY button is pressed and the indicator is turned on.

In this case, this VTR cannot be controlled with the other video equipment. To return to the LANC MODE S mode, call up the MODE SET menu and select LANC MODE S.

SHUTTLE MODE A/B

Change the setting depending upon the type of video equipment you wish to control with this VTR. Select A when a remote commander with JOG/SHUTTLE function cannot be used for the other video equipment. Select B when a remote commander with JOG/SHUTTLE function can be used for the other video equipment.

AUDIO LINE IN ST(stereo)/BIL(bilingual)

Select ST to receive stereo programme sources from the AUDIO LINE IN jacks.
Select BIL to receive bilingual programme sources from the AUDIO LINE IN jacks.

PFS (picture fine select)
If the picture is distorted or has streaks, switch to ON or OFF whichever provides a better picture. Normally, select OFF.

VPS ON/OFF [not available for EV-S1000E (UK)]
Select ON to record a TV programme using the VPS function. Select OFF otherwise. See "VPS Function" on page 65 for details.

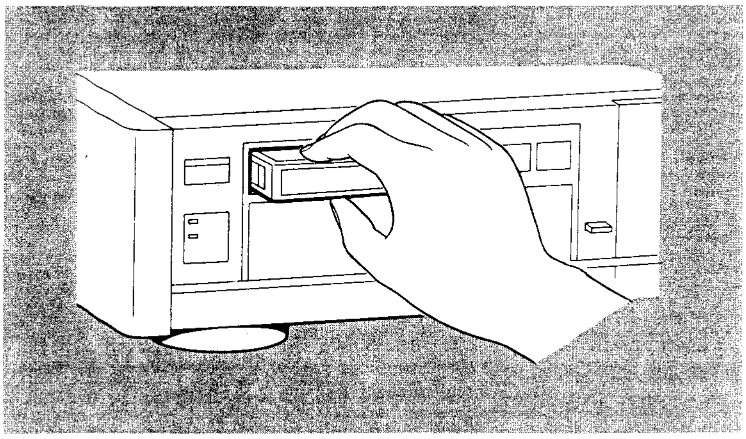
TIMER TITLE ON/OFF [for EV-S1000E (UK) only]
Select ON to start timer recording with a timer title. Select OFF otherwise. See "Recording a Timer Title" on page 64 for details.

AUTO STEREO [not available for EV-S1000E (UK)]
Normally set to ON to receive and record the stereo/bilingual broadast programmes automatically.
Select OFF if there is too much interference in the stereo sound. The broadcast will be received in monaural.

NICAM ON/OFF [for EV-S1000E (UK) only]
Select ON to receive and record the stereo/bilingual programmes based on the "NICAM" system adopted in the United Kingdom. Otherwise, select OFF.

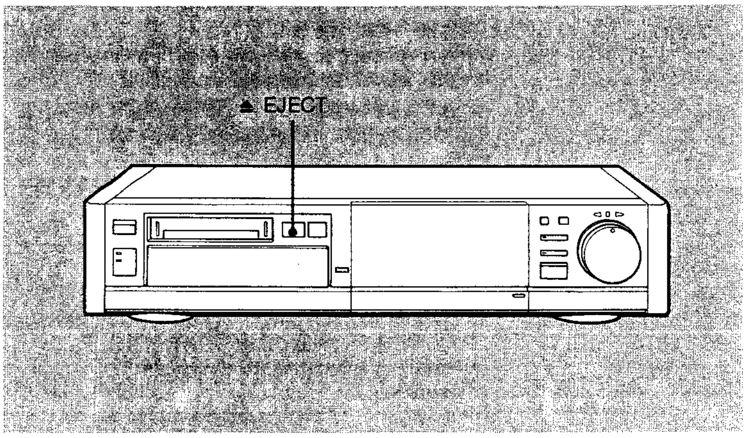
COLOUR SYSTEM AUTO/PAL [not available for EV-S1000E (UK)]
Normally set to AUTO. According to the TV programme, the colour system will automatically be switched to PAL or DDR SECAM. Select PAL if the signal is too weak or the picture is distorted. DDR SECAM programmes may not be displayed properly.

Handling Video Cassettes



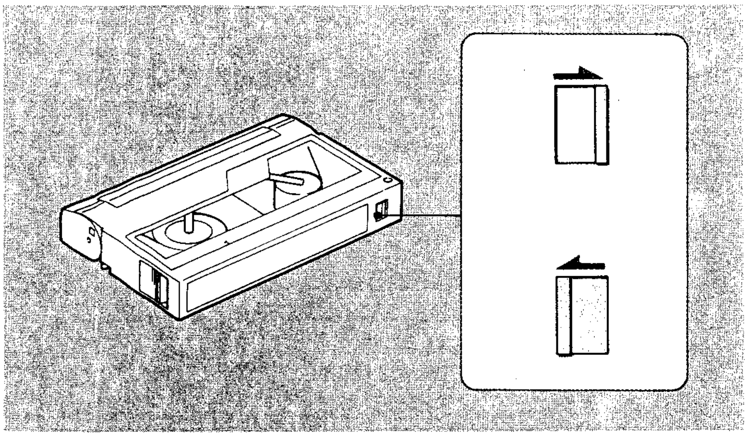
Cassette Insertion

Insert the cassette by slowly pressing it with the window facing upwards. When a cassette is inserted, the power will be turned on automatically.



Cassette Ejection

Press ≜ EJECT on the unit. When the VTR is turned off, pressing the ≜ EJECT button will turn on the unit, eject the cassette, and turn it off again. ≜ EJECT will not function during recording or recording pause mode.



Erase Protection

When recording is made on a pre-recorded tape, the previous recording will be erased. To avoid unintentional erasure, slide out the red tab on the cassette to cover the opening.

Recording/playback Time

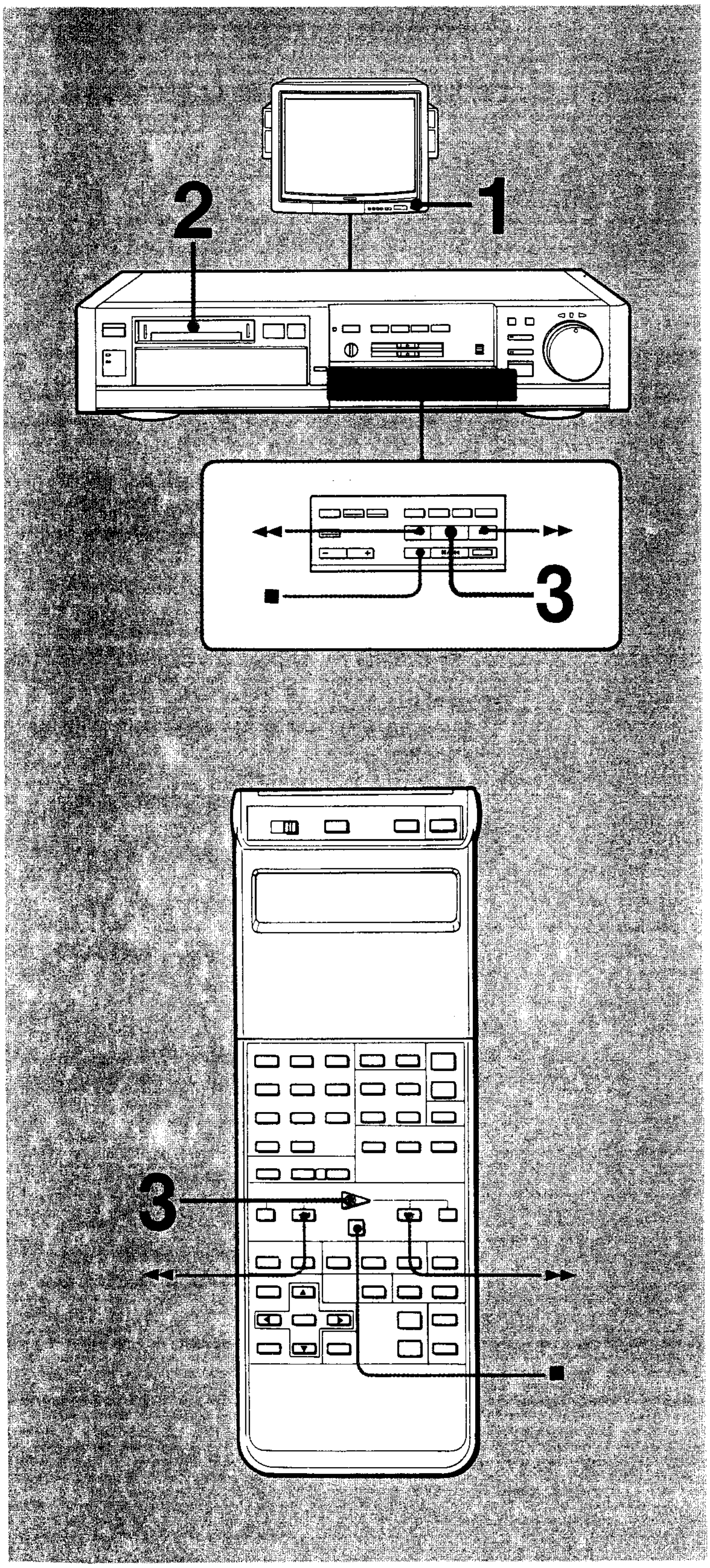
The recording time of a cassette in the LP mode is twice as long as that in the SP mode. However, to obtain better quality picture, use of SP mode is recommended. The recording speed can be selected with the REC MODE button. The playback speed will automatically be detected.

Type of Cassette	SP mode	LP mode
P5-15MP	15 min.	30 min.
P5-30MP/E5-30HME	30 min.	1 hour
P5-60MP/E5-60HME	60 min.	2 hours
P5-90MP/E5-90HME	90 min.	3 hours

Notes on cassettes

- Never insert anything in the small holes at the rear of the cassette as the VTR distinguishes between Hi8 cassette tapes and standard 8 mm cassette tapes by the shape of the holes.
- Store cassettes in their cases and keep them in an upright position to prevent intrusion of dust and uneven winding.
- To record from the beginning of the tape, run the VTR for about 15 seconds at the beginning of the cassette before recording. It will avoid missing the starting point during playback on a video cassette recorder.
- When the VTR is not in use, remove the cassette.

Playback



Playing a Tape

1 **Turn on the TV and select the programme position for the VTR.**
If VTR-TV connection is made via the MONITOR OUT EURO-AV or VIDEO LINE OUT jacks on the VTR, select the input for the VTR.

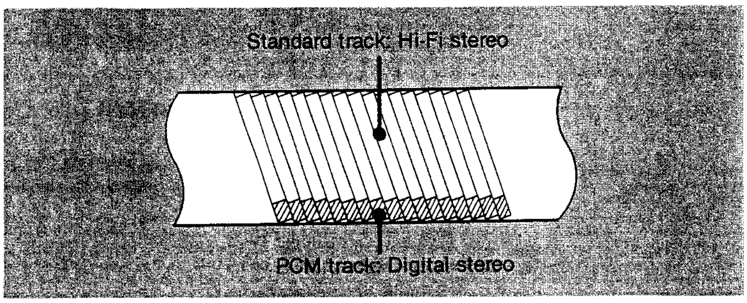
2 **Insert a cassette.**
The VTR will be turned on.

3 **Press ▷.**
Playback starts.

To stop playback
Press ■.

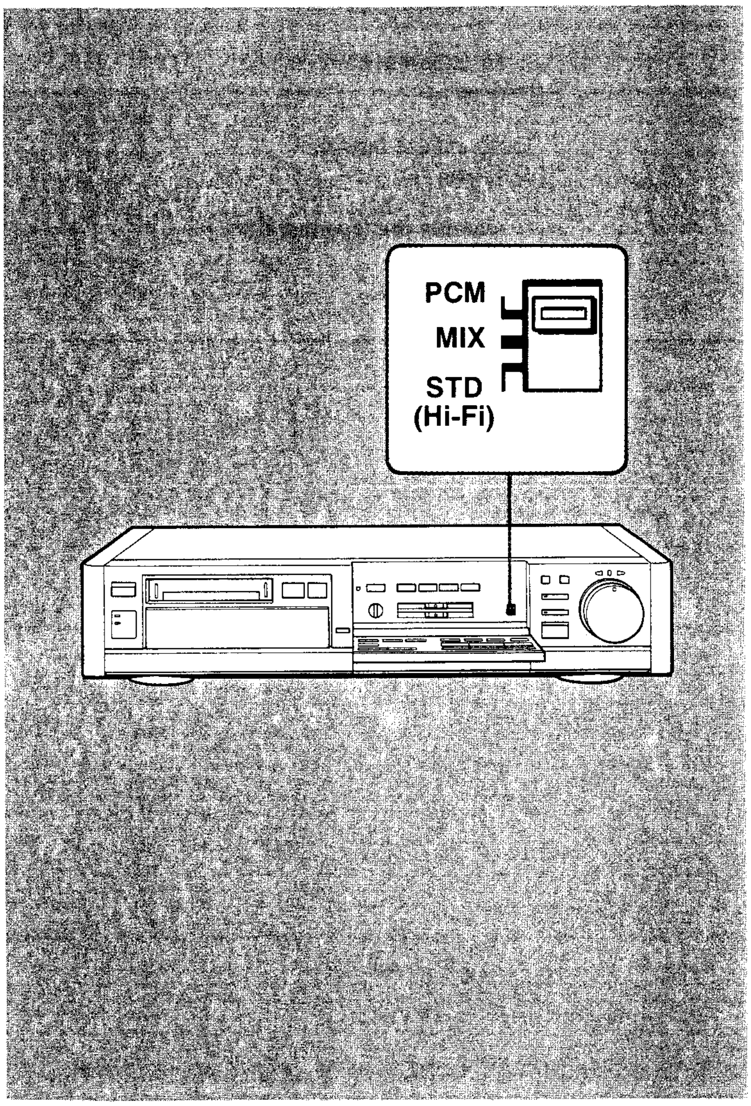
To rewind the tape
Press ◀◀.

To advance the tape rapidly
Press ▶▶.



Selecting the Monitor Sound

Audio recording pattern on the video tape



Selecting the playback track

Choose the desired track to be played back by setting the AUDIO MONITOR switch.

PCM

To playback the digital stereo signals recorded on the PCM track. When nothing is recorded on the PCM track, Hi-Fi stereo track will automatically be played back.

MIX

To playback the mixed sound of the PCM track and the standard track.

STD (Hi-Fi)

To playback the Hi-fi stereo track recorded on the standard track.

Selecting the playback sound after dubbing additional sounds

Set the AUDIO MONITOR switch in the following manner.

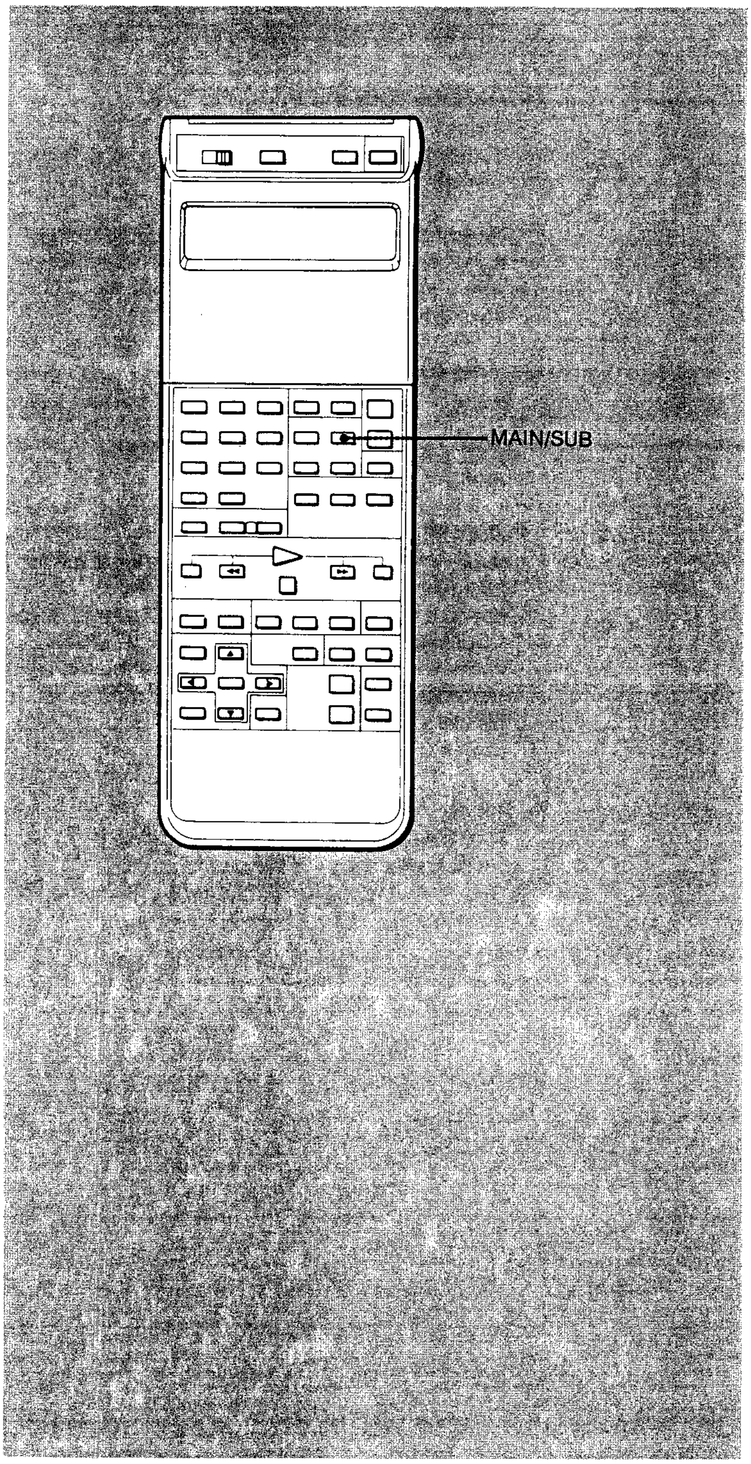
PCM

To playback the additionally dubbed sound (PCM track) only.

MIX

To playback both the additionally dubbed sound (PCM track) and the original sound (standard track).

Notes
- Normally set the AUDIO MONITOR switch to PCM to enjoy high quality playback sound.
- The additionally dubbed sound cannot be heard if the AUDIO MONITOR switch is set to STD (Hi-Fi).



Selecting the playback sound of a stereo/bilingual tape

Choose the desired sound to be played back with the MAIN/SUB button on the Commander.

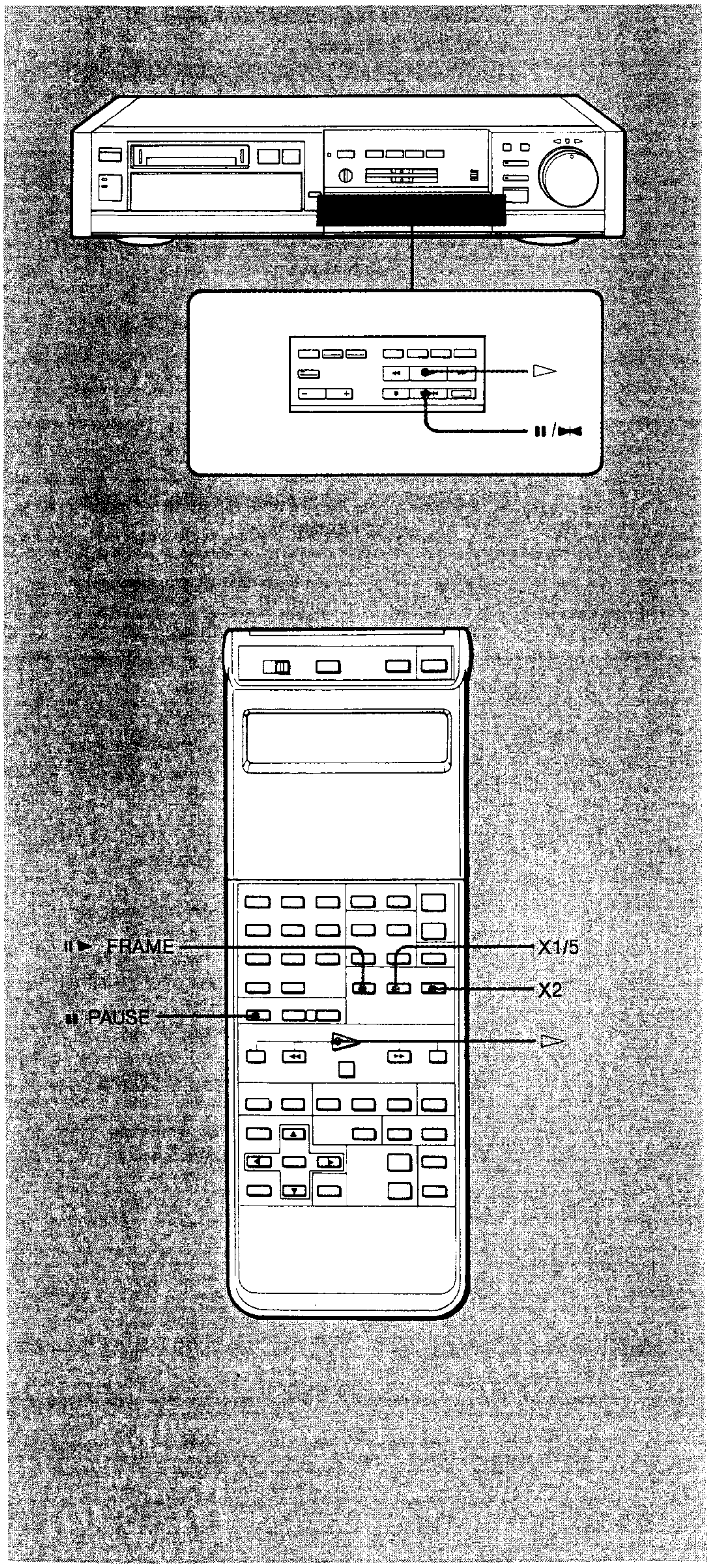
Type of tape	MAIN/SUB button and indicator
Stereo	**Each press changes the playback sound to:** STEREO (stereo sound) ↓ L (left channel) ↓ R (right channel)
Bilingual	**Each press changes the playback sound to:** MAIN/ (main sound) ↓ SUB/ (sub sound) ↓ MAIN/ SUB/ (main/left channel and sub/right channel)

If the sound is not heard or heard only intermittently

When a tape which has been recorded on a video camera recorder or a video cassette recorder without the PCM function is played back on this unit, set the AUDIO MONITOR selector to STD. The PCM indicator may blink, but it will not affect the sound.

When connection is made to a TV without video/audio inputs

To monitor the playback sound in stereo, make connection to a stereo system.



Various Playback Modes

Playback pause/still

Press ❚❚/▶◀ on the unit, or ❚❚ or ❚❚▶ on the Commander during playback. Press ▷ to resume normal playback.

Frame-by-frame playback (Commander only)

Press ❚❚▶ in the playback still mode. Each press of ❚❚▶ will advance the picture one frame. Press ▷ to resume normal playback.

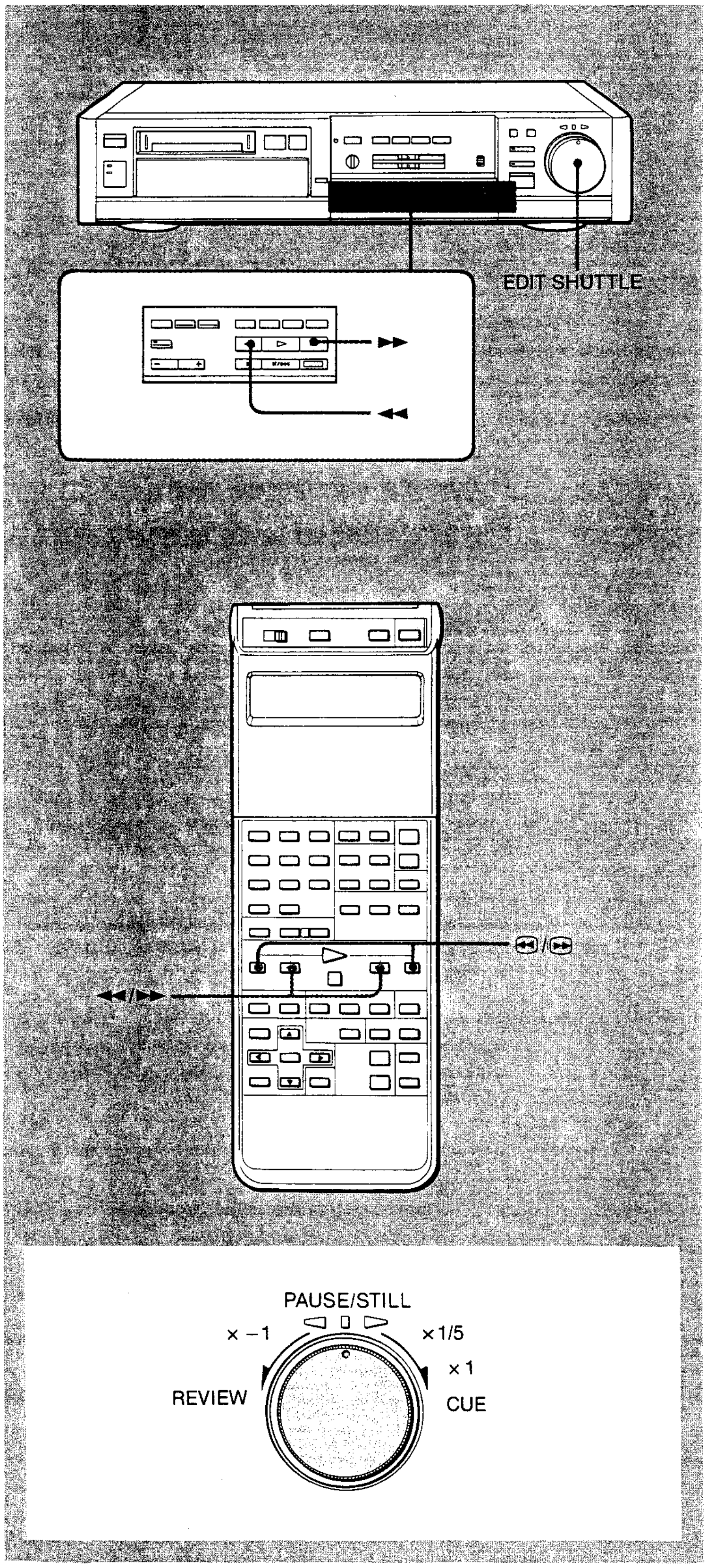
Slow speed playback

Press X1/5 for slow playback at 1/5 times normal speed. The speed setting can be made from any playback mode. Press ▷ to resume normal playback.

Double speed playback

Press X2 for double speed playback. The sound can be heard when X2 AUDIO ON is selected in the MODE SET menu (see page 30). The sound will automatically be switched to monaural when this button is pressed. The speed setting can be made from any playback mode. Press ▷ to resume normal playback.

Note
Slow speed playback will automatically be cancelled after one minute.



Picture search

Press ◄◄ or ►► during playback. The picture will be scanned in reverse with ◄◄ and forward with ►► as long as they are pressed. Release the button to return to the previous playback mode.

Locked picture search

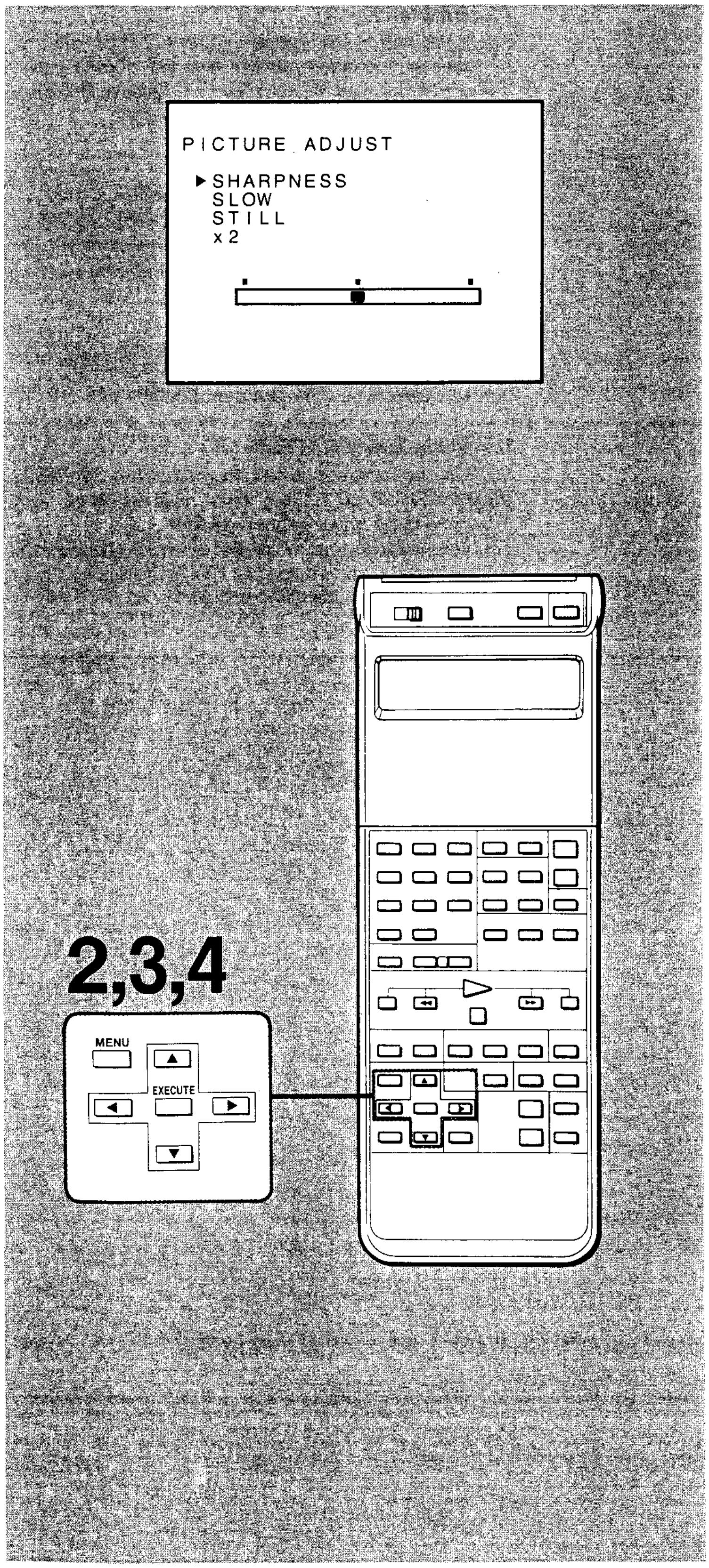
Press ⏪ or ⏩ SEARCH during playback. The picture will keep on scanning in reverse with ⏪ and in forward with ⏩ even after the button is released. To resume normal playback, press ▷.

FR picture search

Press ►► during fast-forward or ◄◄ during rewind modes. The fast-forward or rewind mode picture can be viewed while the button is pressed.

Using the EDIT SHUTTLE

Various playback modes can be selected by holding the EDIT SHUTTLE in the position illustrated. Turn it clockwise for forward direction and counterclockwise for reverse direction. Releasing it will make the picture enter the PAUSE/STILL mode. To resume normal playback, press ▷.



Picture Adjustments

The picture can be adjusted as desired using the PICTURE ADJUST menu. Call up the PICTURE ADJUST menu referring to the following procedure:

1. **Press MENU.**
   The main MENU appears.
2. **Move cursor to PICTURE ADJUST by using ▲ or ▼.**
3. **Press EXECUTE.**
   The PICTURE ADJUST menu appears.
4. **Move cursor to the parameter to be adjusted by using ▲ or ▼.**
5. **Press ◀ or ▶ to adjust the picture.**
6. **Press EXECUTE to store the setting and erase the PICTURE ADJUST menu.**

Details of each parameter

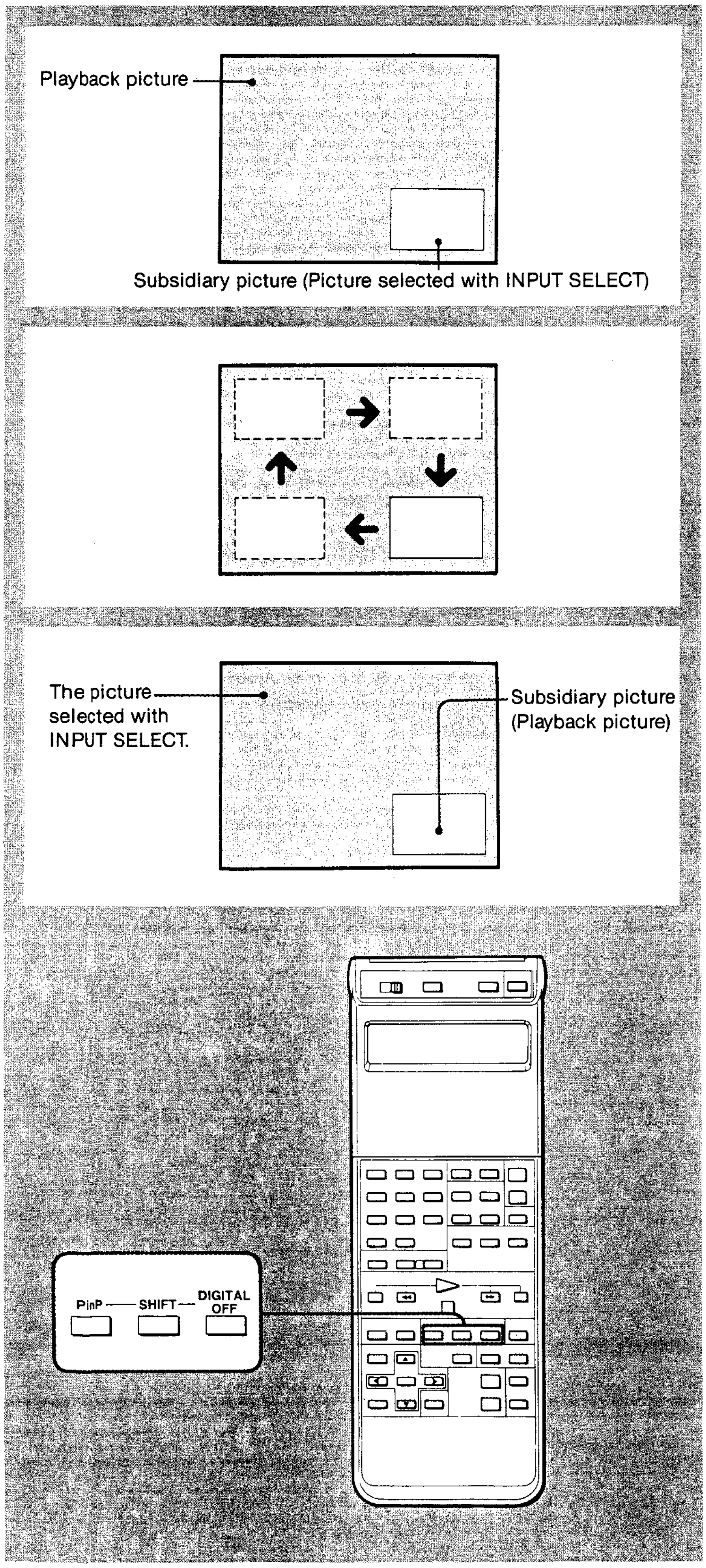
SHARPNESS
Press ▶ for a sharpter picture. Press ◀ for a softer picture. Adjustable only in the playback mode.

SLOW
Press ◀ or ▶ to clear out the noise bands that may appear during slow speed playback. Adjustable only in the slow speed playback mode.

STILL
Press ◀ or ▶ so that the vertical shaking of the picture during the still mode will stop. Adjustable only in the still mode.

X2
Press ◀ or ▶ to clear out the noise bands that may appear during the x 2 playback mode. Adjustable only in the x 2 mode.

Note
The cursor position will change when the VTR's playback mode changes.


Playback picture
Subsidiary picture (Picture selected with INPUT SELECT)
The picture selected with INPUT SELECT.
Subsidiary picture (Playback picture)
PinP
SHIFT
DIGITAL OFF

Inserting a Subsidiary Picture in the Playback Picture — P in P

Calling-up the subsidiary screen

Press P in P during playback.
When TUNER is selected with INPUT SELECT, the TV picture can be viewed in the subsidiary screen.

Changing the position of the subsidiary picture

Press SHIFT.
The position will be shifted as illustrated.

Inverting the position of the subsidiary picture

Press P in P again.

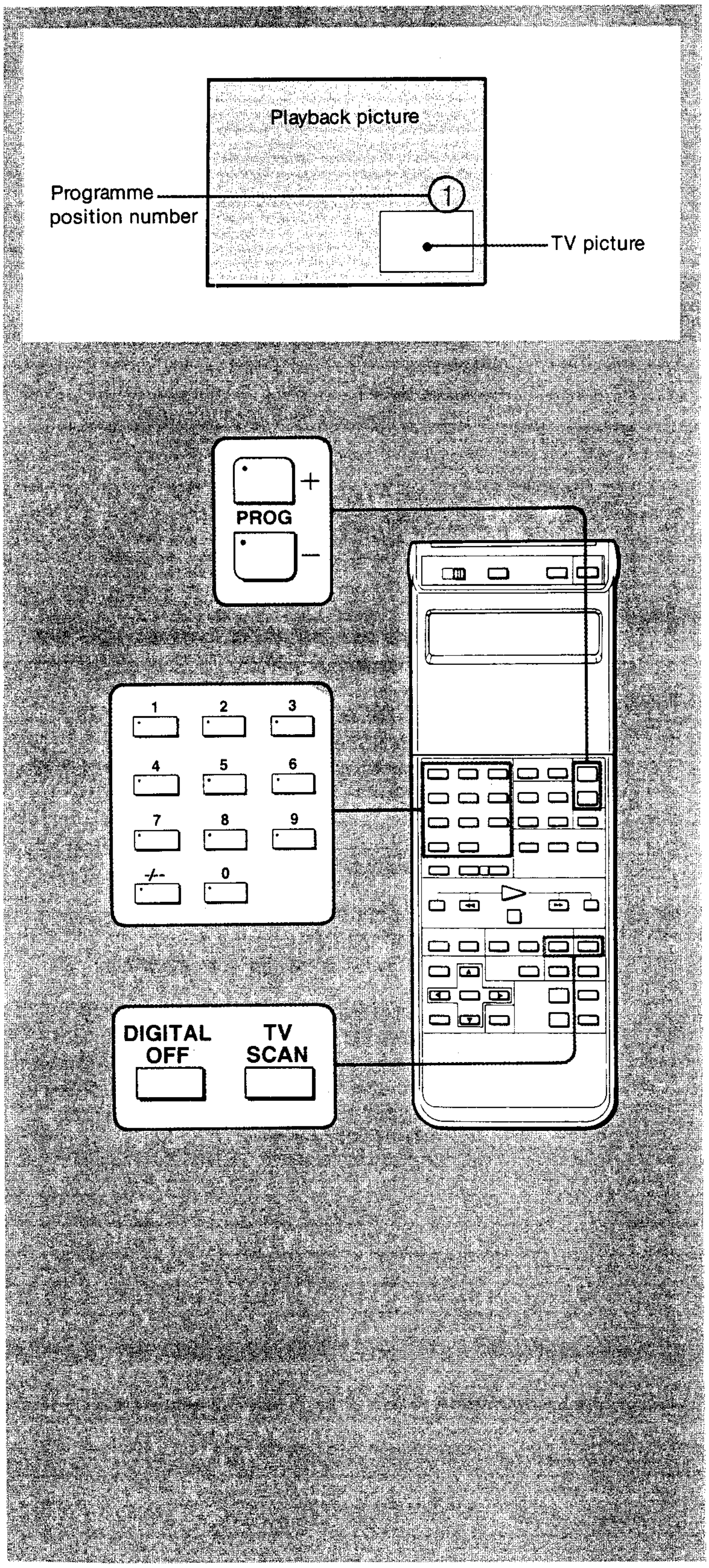
To turn off the subsidiary picture

Press DIGITAL OFF.
The position of the subsidiary picture will be stored in the memory.

Sound during P in P

If VTR-TV connection is made via the MONITOR OUT jacks on the VTR:
The sound of the main picture is output.

If VTR-TV connection is made via the LINE OUT jacks on the VTR:
During playback, the sound of the playback picture of this VTR is output. In other modes, the sound of the input source selected on this VTR is output.


Playback picture
Programme position number
1
TV picture
PROG
+
–
1
2
3
4
5
6
7
8
9
-/--
0
DIGITAL OFF
TV SCAN

Watching TV Channels in Succession — TV Scan

You can watch each TV programme for a few seconds, in the preset order, while playing back a tape.

Operation

Press TV SCAN during playback.

The TV programme will be displayed in the subsidiary picture for a few seconds with the programme position number. After all of the preset programmes are displayed, the first preset programme position will appear again.

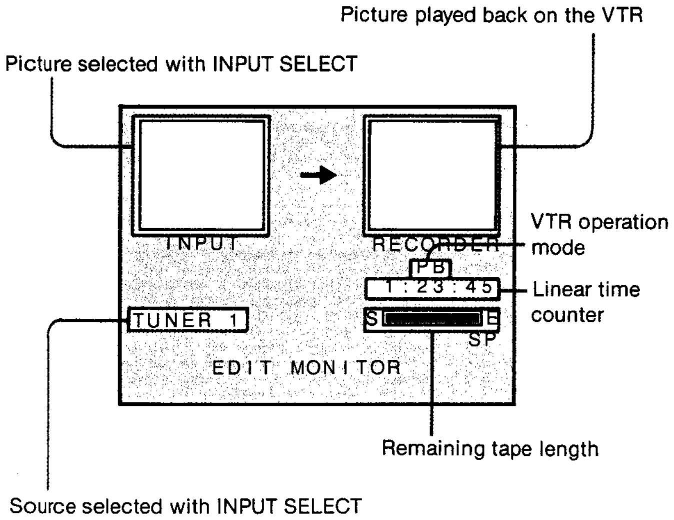
Watching the desired programme position in the subsidiary screen

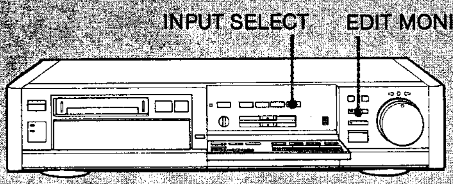
Press the programme position number button or press PROG (PROGRAM) + / –.

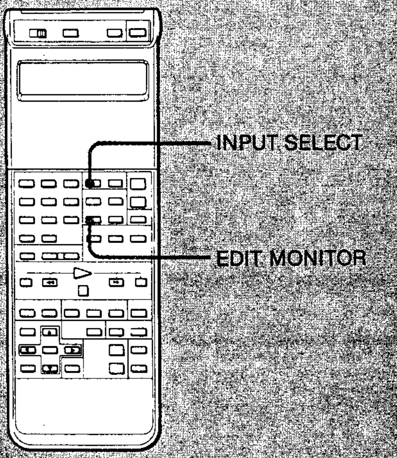
Turning off the subsidiary picture

After TV scanning is completed, press DIGITAL OFF.

During TV scanning, enter the programme position of the desired programme directly by the programme position number buttons on the Commander or the PROG(PROGRAM) + / – buttons.


Picture played back on the VTR
Picture selected with INPUT SELECT
INPUT
RECORDER
PB
1 : 23 : 45
TUNER 1
S E
SP
EDIT MONITOR
VTR operation mode
Linear time counter
Remaining tape length
Source selected with INPUT SELECT

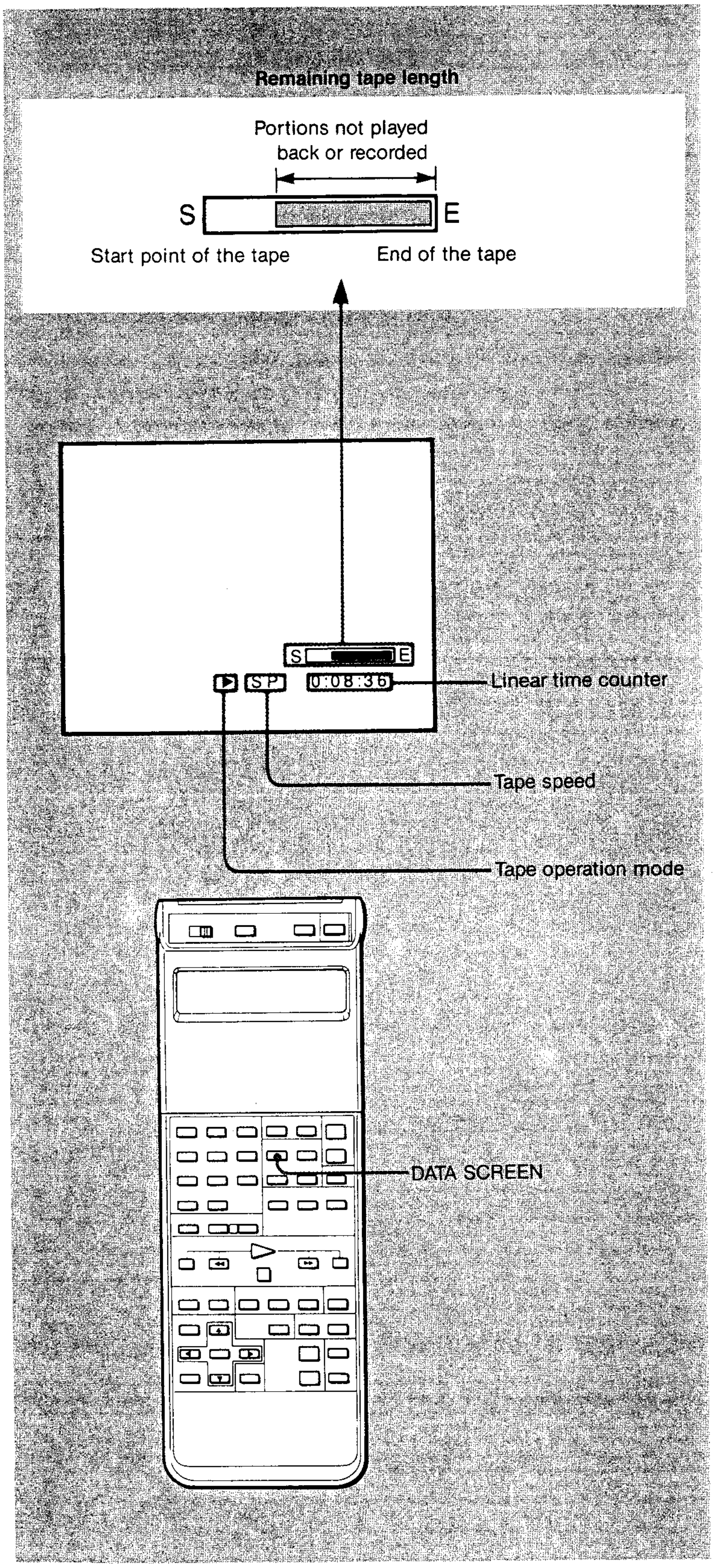

INPUT SELECT
EDIT MONITOR


INPUT SELECT
EDIT MONITOR

Watching Two Pictures Simultaneously — EDIT MONITOR

Press EDIT MONITOR on the Commander or the VTR.
The playback picture of this VTR and the picture selected by the INPUT SELECT button can be viewed simultaneously in the EDIT MONITOR screen.

Refer to the “Editing” section for the convenient use of EDIT MONITOR screen during editing.

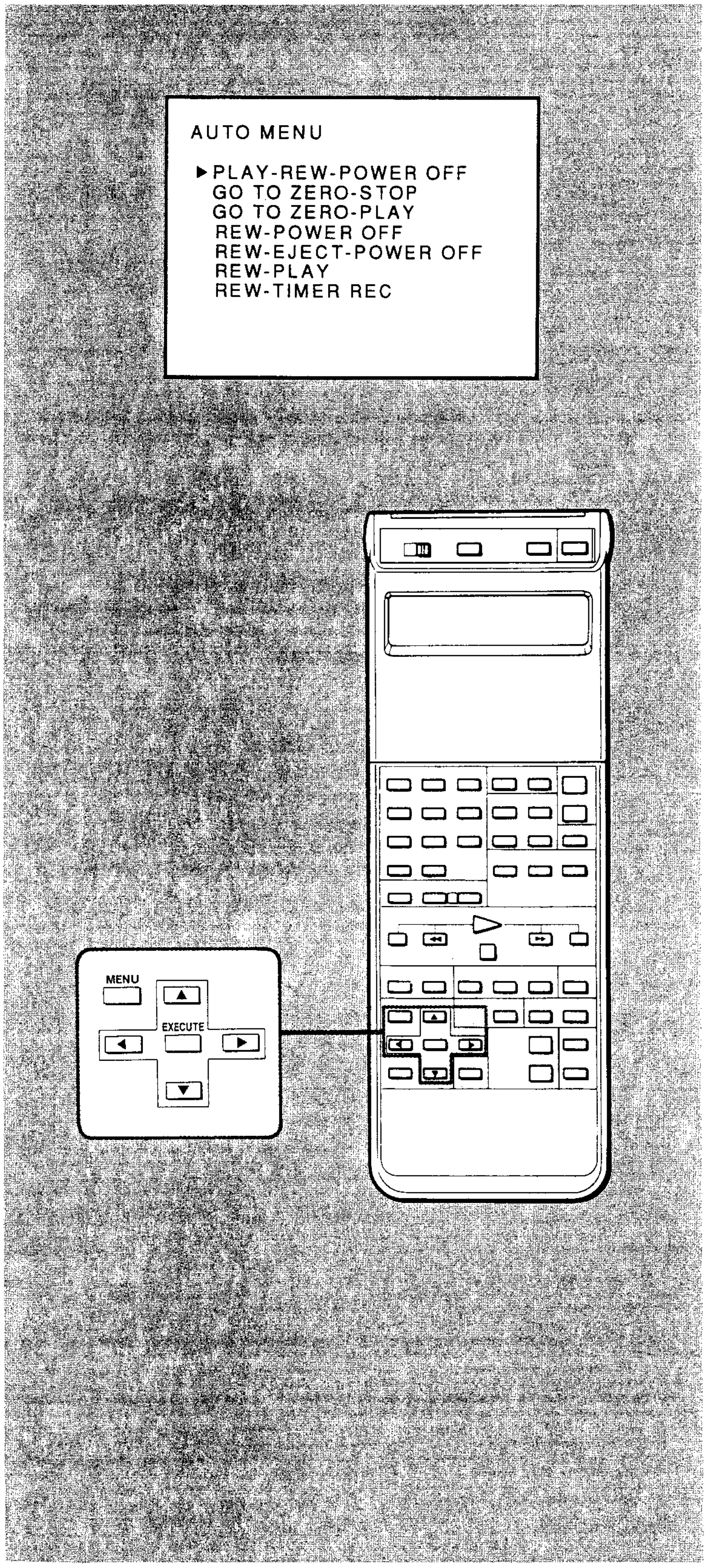

Remaining tape length
Portions not played back or recorded
S
E
Start point of the tape
End of the tape
S
E
SP
0:08:36
Linear time counter
Tape speed
Tape operation mode
DATA SCREEN

Data Screen

Data screen information illustrated on the left will automatically appear on the screen during playback or recording as a reference. Note, however, that the data screen will not be displayed when VTR — TV connection is made via the VIDEO LINE OUT jack of this unit.

To erase or display the data screen
Press DATA SCREEN on the Commander.

Note on the remaining tape length indicator
The remaining tape length indicator shows the approximate amount of tape left.


AUTO MENU
▶PLAY-REW-POWER OFF
GO TO ZERO-STOP
GO TO ZERO-PLAY
REW-POWER OFF
REW-EJECT-POWER OFF
REW-PLAY
REW-TIMER REC
MENU
EXECUTE

Assigning a Desired Operation Mode

Guided by the AUTO MENU, you can make the VTR enter the desired operational sequence automatically.

1 **Press MENU.**
The main MENU appears.

2 **Move cursor by using ▲ or ▼ to AUTO MENU.**

3 **Press EXECUTE.**
The AUTO MENU appears.

4 **Move cursor by using ▲ or ▼ to the desired operational sequence.**

5 **Press EXECUTE.**
The selected operation will begin.
The selected operation will be displayed on the screen for a few seconds.

Auto Menu Modes

PLAY – REW – POWER OFF plays back the tape, rewinds the tape when the end is reached, and turns the power off.

GO TO ZERO – STOP searches for the counter zero point and stops. See page 69.

GO TO ZERO – PLAY searches for the counter zero point and starts playback. See page 70.

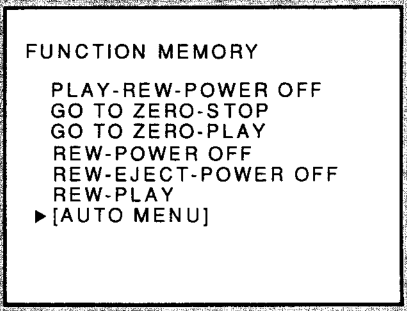
REW – POWER OFF rewinds the tape to the beginning and turns the power off.

REW – EJECT – POWER OFF rewinds the tape to the beginning, ejects the cassette, and turns the power off.

REW – PLAY rewinds the tape to the beginning and starts playback.

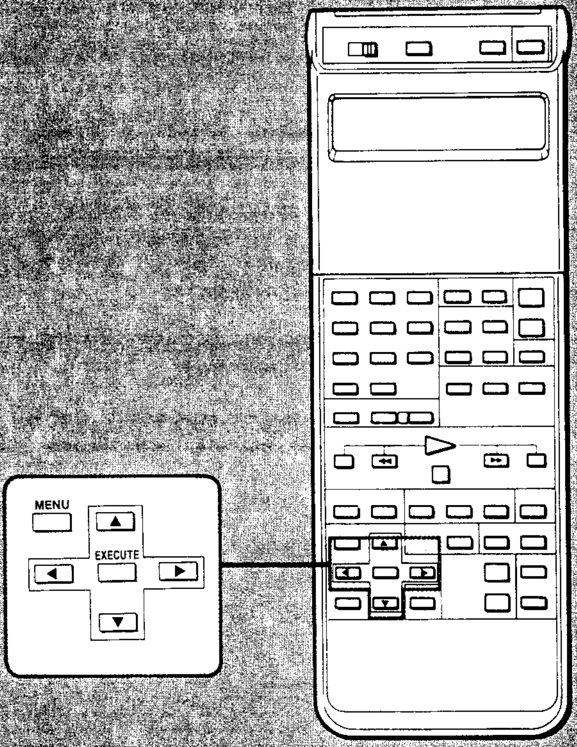
REW – TIMER REC rewinds the tape to the beginning and enters the timer recording standby mode for timer recording. A cassette with its red tab slid out will be ejected.

Note on REW — TIMER REC
If the VTR is in the timer recording standby mode, first press TIMER REC (ON/OFF) to cancel the standby mode, next turn on the power to the unit, then call up the AUTO MENU referring to the procedure on page 45.



FUNCTION MEMORY

PLAY-REW-POWER OFF
GO TO ZERO-STOP
GO TO ZERO-PLAY
REW-POWER OFF
REW-EJECT-POWER OFF
REW-PLAY
▶[AUTO MENU]



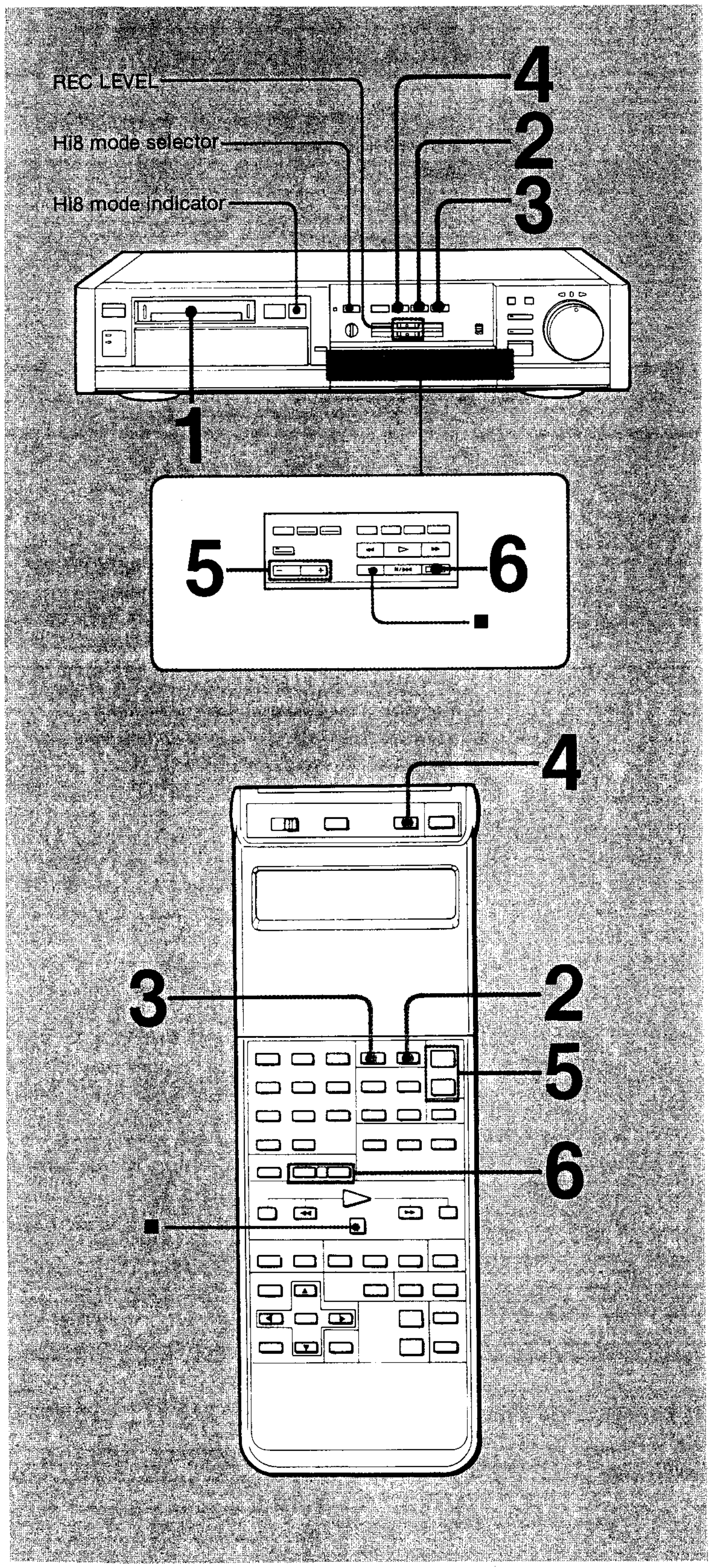
Assigning an Auto Menu Mode to the FUNCTION MEMORY Button

One of the AUTO MENU modes can be assigned to the FUNCTION MEMORY button on the Commander.

1. **Press MENU.**
   The main MENU appears.
2. **Move cursor with ▲ or ▼ to FUNCTION MEMORY.**
3. **Press EXECUTE.**
   The FUNCTION MEMORY menu appears.
4. **Move cursor to the desired operational sequence.**
5. **Press EXECUTE.**
   Now the selected operation is assigned to the FUNCTION MEMORY button. Every time FUNCTION MEMORY is pressed in the stop mode, the selected operation will begin.

   If [AUTO MENU] is selected in step **4**, AUTO MENU will be displayed immediately when FUNCTION MEMORY is pressed, providing a direct access to the AUTO MENU.

Recording TV Programmes



Before You Begin

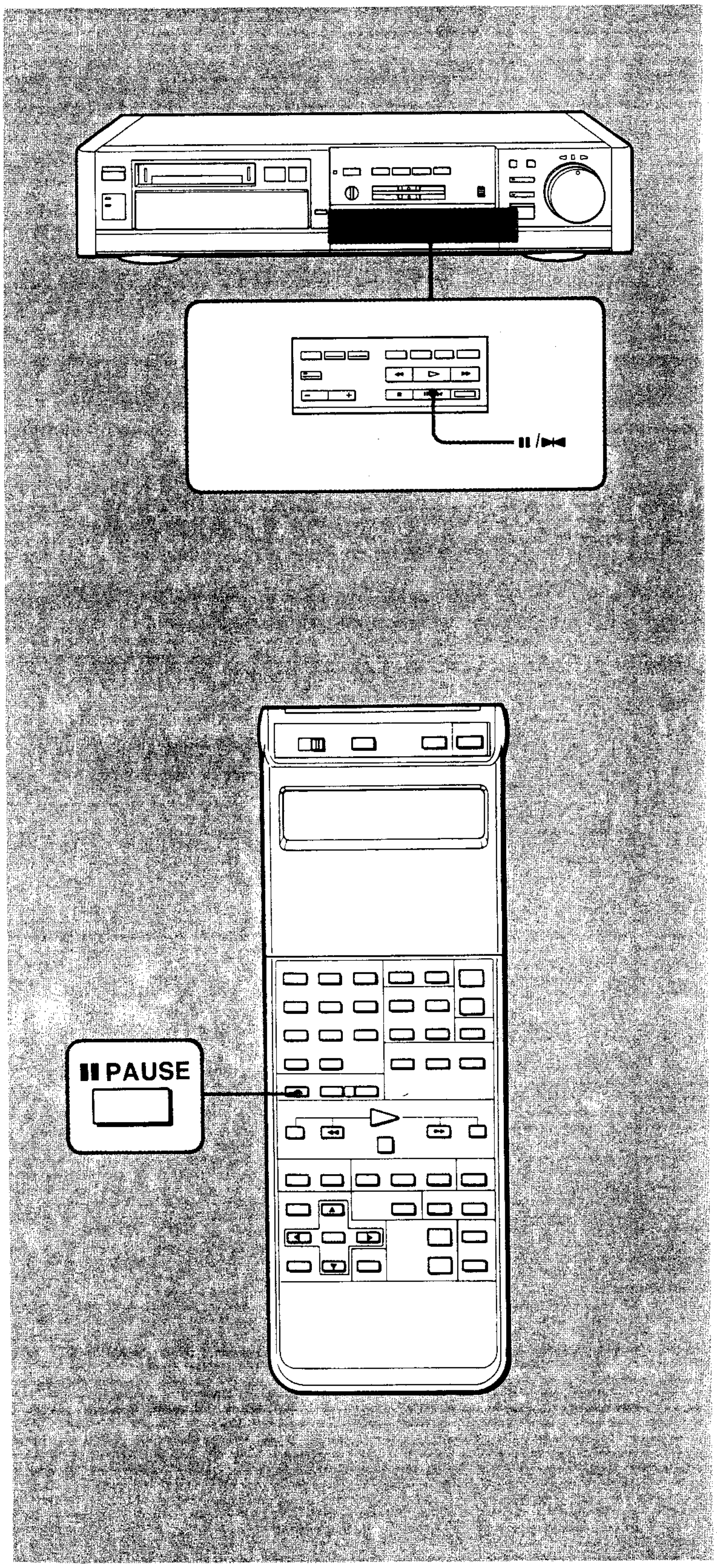
- Check that all of the connections are complete.
- Turn on the TV and select the video input on the TV or select the programme position for the recorder.
- Check the Hi8 indicator when using a Hi8 tape. Turn it on to record in the Hi8 mode. Turn it off to record in the standard 8 mm mode.
- Set the REC LEVEL controls to the appropriate level. (see page 52).
- Data screen displays will not be recorded.

Operation

1. **Insert a cassette.**
   The power will automatically be turned on.
2. **Select the recording speed, SP or LP, with REC MODE.**
3. **Press INPUT SELECT so that the TUNER indicator appears in the display window.**
4. **Press TV/VTR so that the VTR indicator is turned on in the display window (only when TV — VTR connection is made via the AERIAL OUT socket on the VTR).**
5. **Select the programme position to be recorded with PROG (PROGRAM) + / –.**
6. **Press the right button while pressing ● REC on the Commander, or press the ● REC button on the unit.**
   Recording will begin.

To stop recording

Press ■ STOP.



To Cut Out Scenes by Recording Over It

Overview

Using the recording pause mode, you can stop recording when an unwanted scene appears and then resume recording smoothly. Moreover, utilizing the SHUTTLE EDIT buttons on the Commander or the EDIT SHUTTLE on the VTR, it is possible to cut out unwanted scenes by rewinding and/or advancing the tape, then entering the recording pause mode, and resume recording smoothly.

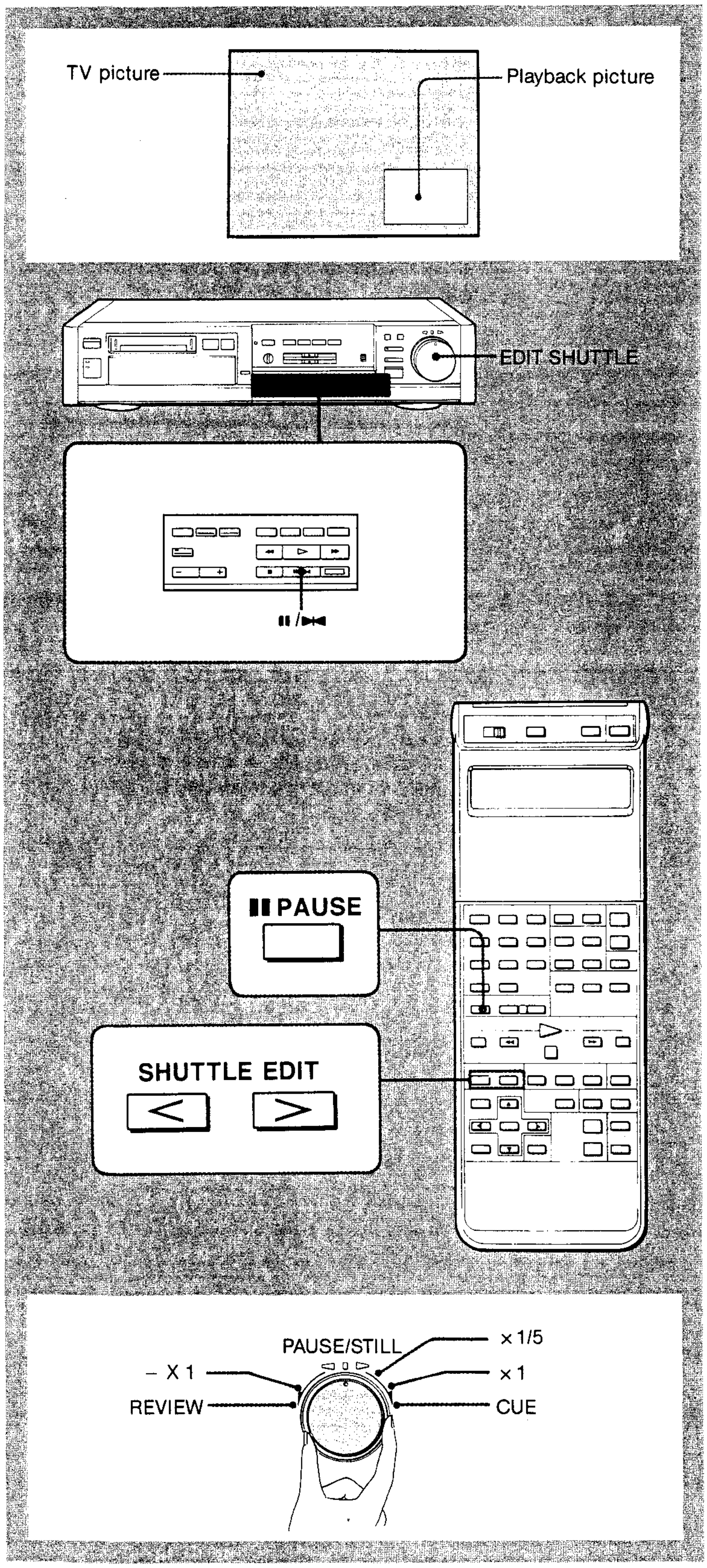
Operation

Basic

1 **While recording, press II PAUSE on the Commander or II /▶◀ PAUSE/STILL on the VTR.**
The VTR will enter the recording pause mode.

2 **Press II PAUSE at the desired point to continue recording.**

Note
To protect the tape and video heads, the pause mode will be automatically released after about 7 minutes and the VTR will enter the stop mode.



Advanced

1 While recording TV broadcasts, press II PAUSE on the Commander or II/▶◀ PAUSE/STILL on the VTR.
The VTR will enter the recording pause mode.

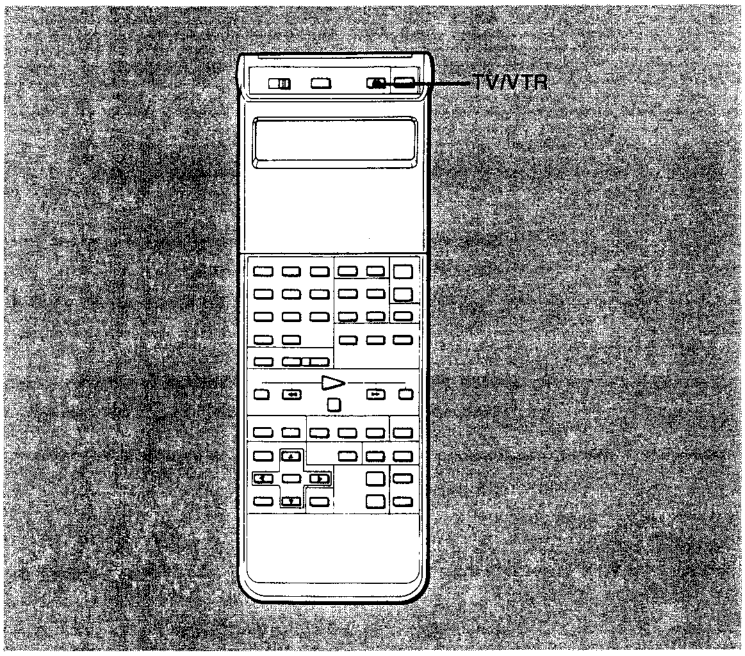
2 Rewind the tape with SHUTTLE EDIT < or > on the Commander or EDIT SHUTTLE on the VTR to locate the point to resume recording.
A P in P screen will be appear and the playback picture can be viewed in the subsidiary display.

Using the SHUTTLE EDIT < or >:
Press < to reverse the picture (x 1 speed).
Press > to advance the picture (x 1 speed).

Using the EDIT SHUTTLE:
Turn to the left to search in reverse.
Turn to the right to search in forward.
The playback speed is as indicated in the illustration.

3 Release the SHUTTLE EDIT button or the EDIT SHUTTLE at the desired point.
The subsidiary screen will be cleared and the VTR enters the recording pause mode after approximately 2 seconds.

4 Press II PAUSE on the Commander or II/▶◀ PAUSE/STILL on the unit when you wish to resume recording.



Watching a TV Broadcast While Recording

If VTR-TV connection is made using the MONITOR OUT EURO-AV

Press TV/VTR to turn off the VTR indicator.

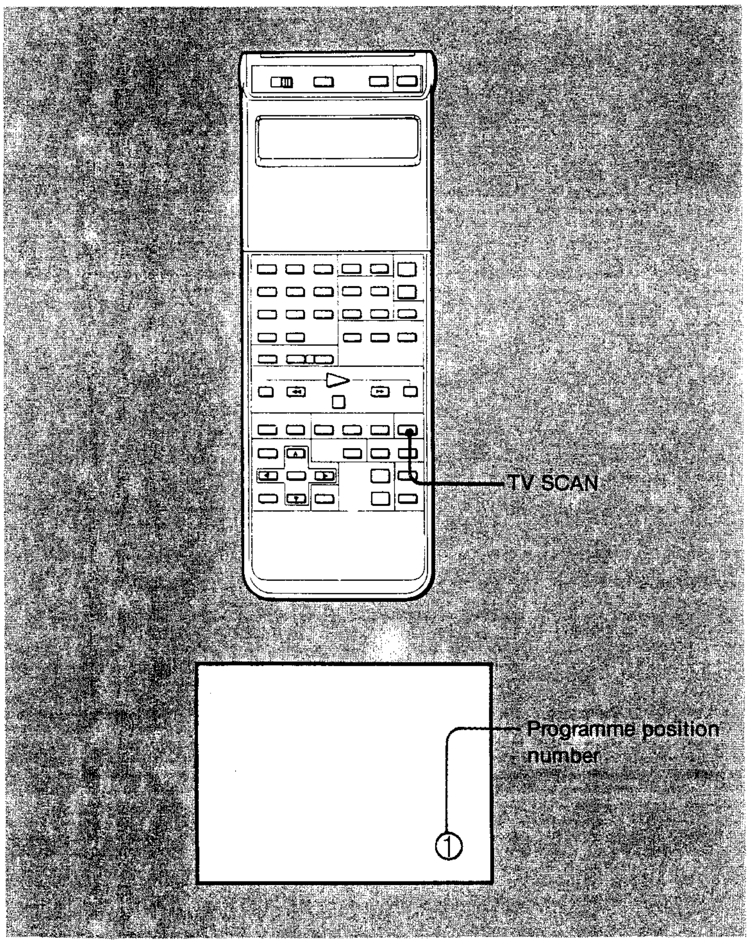
The programme selected on the TV appears on the screen.

If VTR-TV connection is made using the LINE OUT VIDEO/S VIDEO/AUDIO or MONITOR OUT S VIDEO jacks

Press TV/VTR to turn off the VTR indicator. Select the tuner input on the TV and change the programme position on the TV.

If VTR-TV connection is made using the AERIAL sockets

Press TV/VTR to turn off the VTR indicator and change the programme position using the programme position number buttons on the TV.

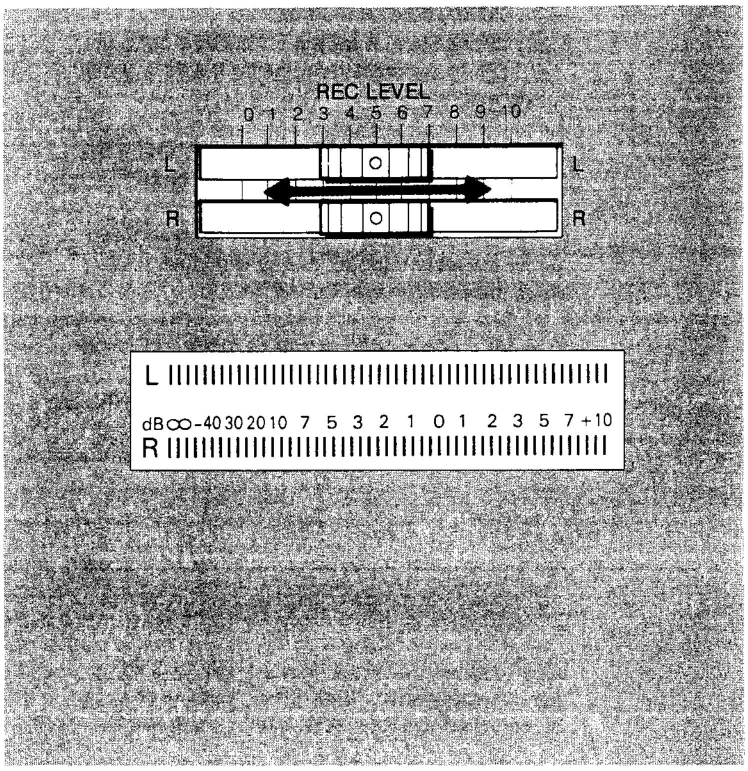


To Scan TV Programmes

While viewing TV programmes, press TV SCAN. You can watch each TV programme for a few seconds in the order that you have preset them.

Recording Level Adjustment

Adjust the REC LEVEL controls to record in the appropriate audio level referring to the peak programme meter in the display window.



Appropriate Recording Level

Recording sources with medium or lower frequency signals (e.g. vocals)

Adjust so that the element at the 0dB level lights at the highest signal level.

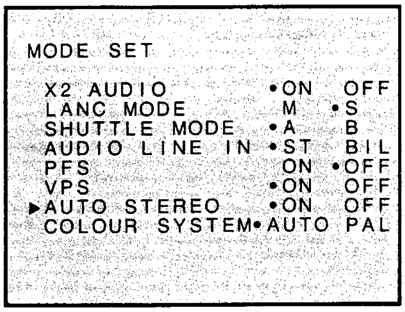
Recording sources with medium or high frequency signals (e.g. trumpets, treble sound of violins)

Adjust so that the element at the −1 to −3dB level lights at the highest level.

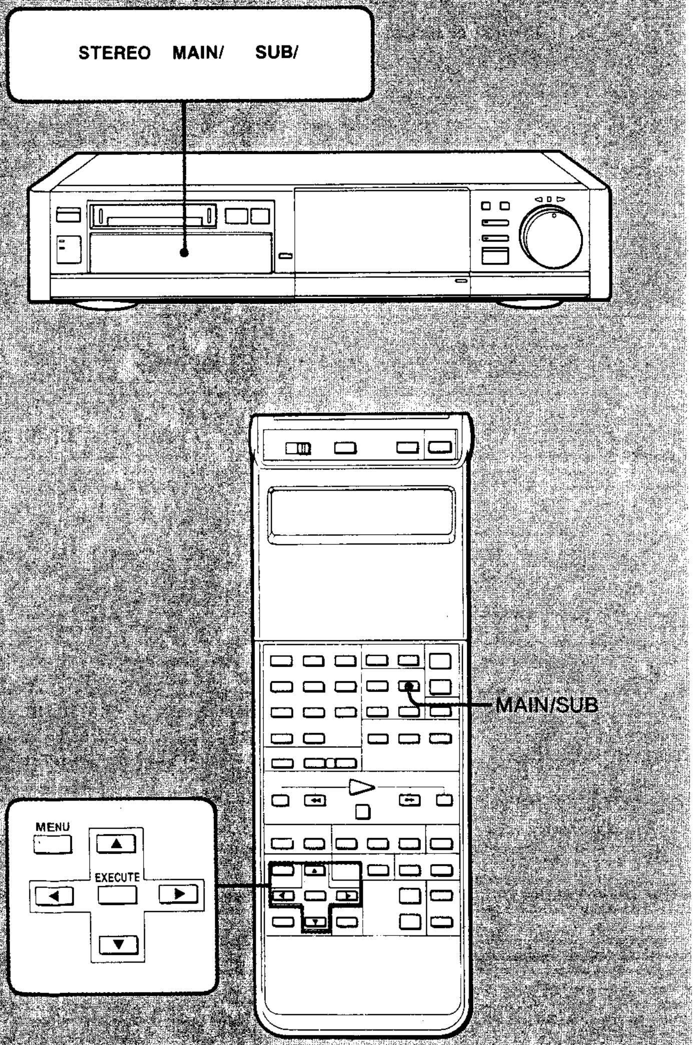
Notes

- During playback, the peak programme meter shows the peak of the recording sound.
- After recording, it is recommended that the REC LEVEL controls are set to the minimum levels for playback.
  These controls do not affect the volume during playback but noise may occur when playback is stopped and this may damage the speakers, if connected.

Recording Stereo/Bilingual Programmes



```
MODE SET

 X2 AUDIO          •ON   OFF
 LANC MODE           M  •S
 SHUTTLE MODE      •A    B
 AUDIO LINE IN     •ST   BIL
 PFS                ON  •OFF
 VPS               •ON   OFF
▶AUTO STEREO       •ON   OFF
 COLOUR SYSTEM•AUTO PAL
```



EV-S1000E

The EV-S1000E receives and records stereo/ bilingual programmes based on the "Zweiton" system adopted in West Germany. To receive "Zweiton" broadcasts, select AUTO STEREO ON in the MODE SET menu (page 30).

Stereo programmes

When a stereo programme is received, the STEREO indicator appears in the display window. The MAIN/SUB button does not function for the stereo programme of the Zweiton system.

Bilingual programmes

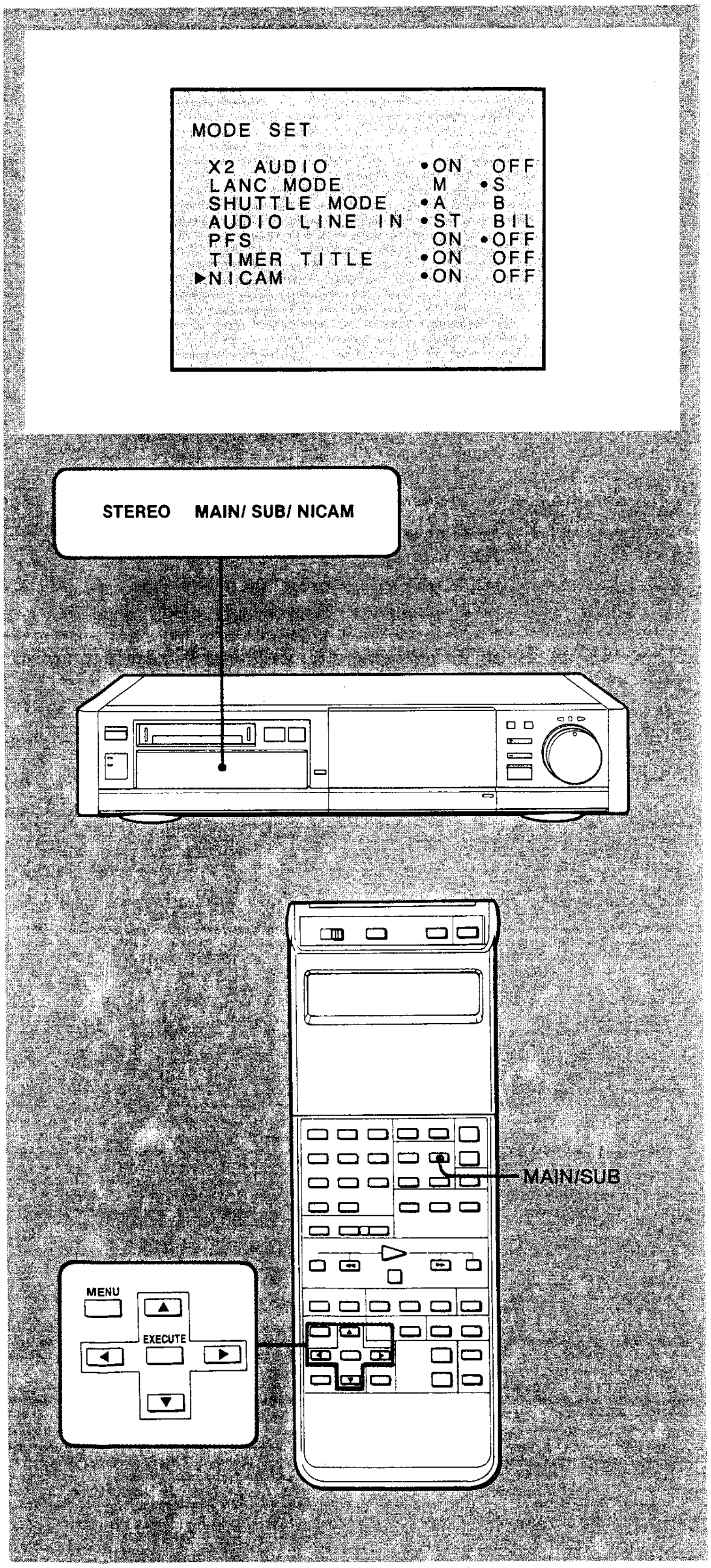
When a bilingual programme is received, MAIN/ appears in the display window. If desired, it is possible to select the monitor sound. Press the MAIN/SUB button repeatedly until the desired sound is heard. The sound is selected cyclically in the following order.

Display	**Sound to be heard**
MAIN/	Main sound
SUB/	Sub sound
MAIN/ SUB/	Main sound on the left channel and sub sound on the right channel

To record

A stereo or bilingual programme will be recorded on the standard track (Hi-Fi stereo) and PCM track as listed below, regardless of the sound being monitored.

Track		**Sound to be recorded**	
		Stereo	Bilingual
PCM and Standard (Hi-Fi)	Left channel	Left channel	Main
	Right channel	Right channel	Sub



```
MODE SET

  X2 AUDIO          •ON   OFF
  LANC MODE          M   •S
  SHUTTLE MODE      •A    B
  AUDIO LINE IN     •ST   BIL
  PFS                ON  •OFF
  TIMER TITLE       •ON   OFF
▶NICAM              •ON   OFF
```

EV-S1000E (UK)

The EV-S1000E (UK) receives and records stereo/ bilingual programmes based on the "NICAM" system adopted in the United Kingdom. To receive "NICAM" broadcasts, select NICAM ON in the MODE SET menu. If you do not wish to record in the NICAM system, select NICAM OFF in the MODE SET menu (page 30).

Stereo programmes

When a stereo programme is received, STEREO and NICAM indicators appear in the display window.

Display	Sound to be heard
STEREO NICAM	Left channel sound on the left channel Right channel sound on the right channel

Bilingual programmes

When a bilingual programme is received, NICAM and MAIN/ appears in the display window. If desired, it is possible to select the monitor sound. Press the MAIN/SUB button repeatedly until the desired sound is heard. The sound is selected cyclically in the following order.

Display	Sound to be heard
MAIN/ NICAM	Main sound
SUB/ NICAM	Sub sound
MAIN/ SUB/ NICAM	Main sound on the left channel Sub sound on the right channel

To record

A stereo or bilingual programme will be recorded on the standard track (Hi-Fi stereo) and PCM track as follows, regardless of the sound being monitored.

Track		**Sound to be recorded**	
		Stereo	Bilingual
PCM and Standard (Hi-Fi)	Left channel	Left channel	Main
	Right channel	Right channel	Sub

Understanding the NICAM broadcast
NICAM broadcasting has two-channel digital sounds called NICAM L and R channels in addition to the standard sound. The NICAM L and R are assigned to the stereo left and right channels or the main and sub sounds of a bilingual programme. The standard sound of most NICAM broadcasts is the mixed sound of the left and right channels for a stereo programme, and the main sound for a bilingual programme.

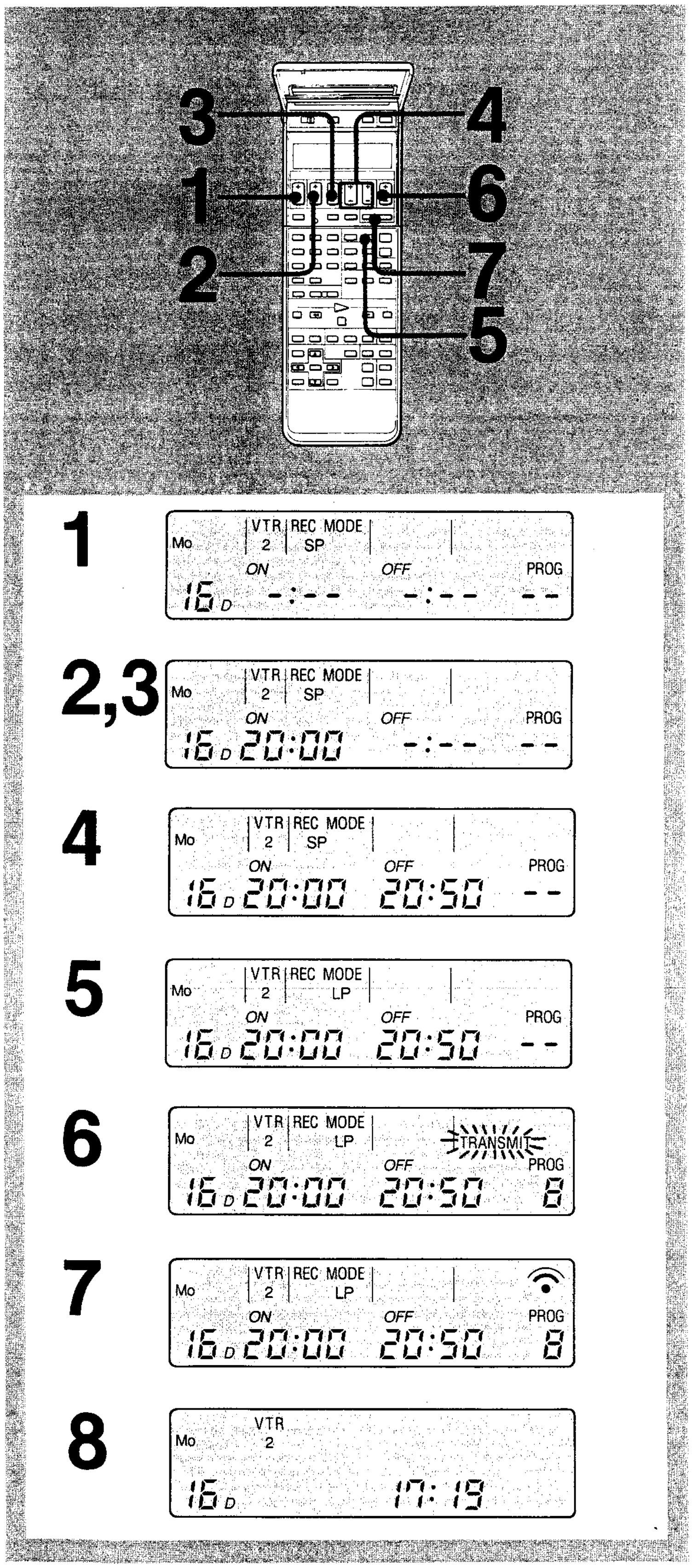
Timer Recording

Timer Recording on this VTR

Up to six preselected programmes, can be set on this unit, up to one month in advance.

Before You Begin

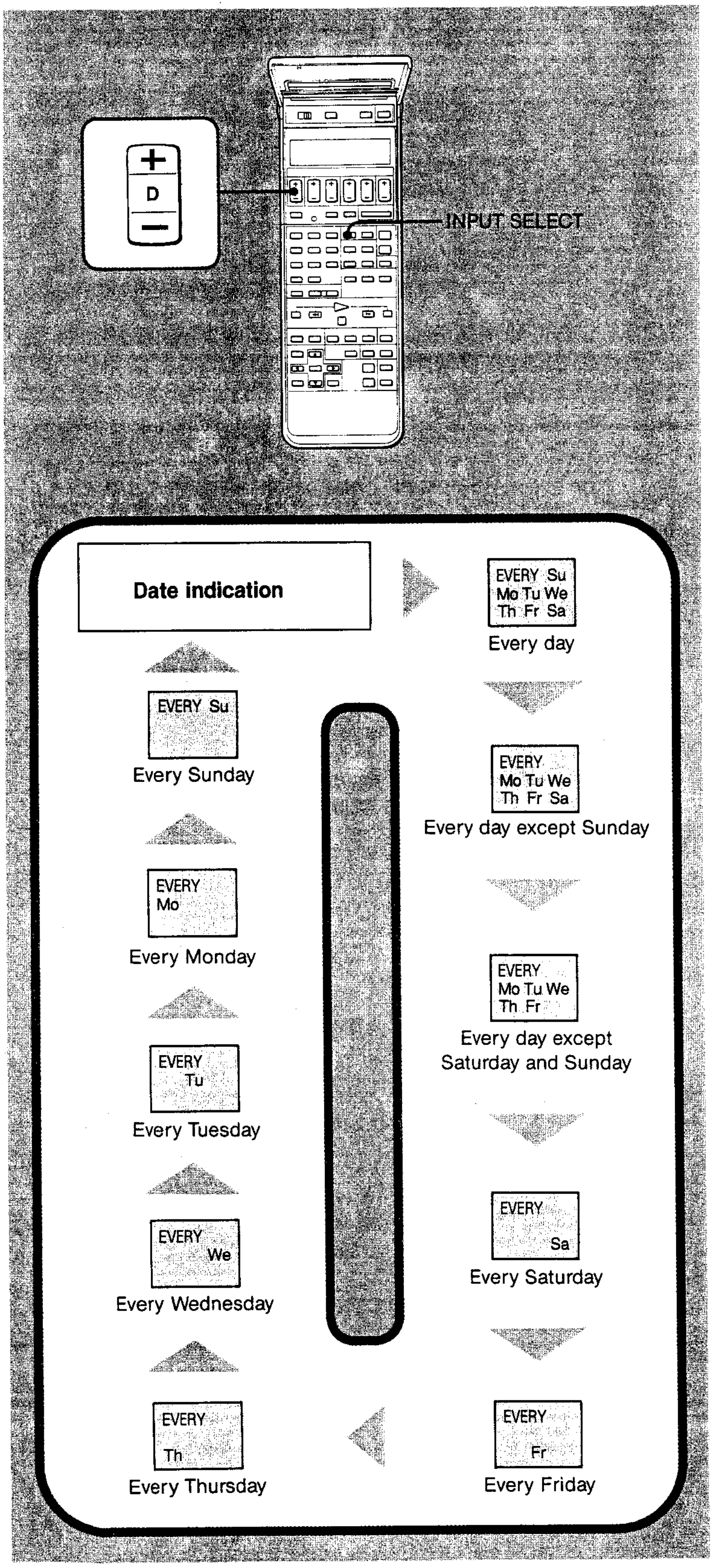
- Turn on the TV and adjust it to view the VTR picture.
- Check to see that the clock on the Commander and the VTR show the present time.
- To operate the EV-S1000E read "VPS Function" first.


3
4
1
6
2
7
5
1
Mo VTR 2 REC MODE SP
ON OFF PROG
16 D -:-- -:-- --
2,3
Mo VTR 2 REC MODE SP
ON OFF PROG
16 D 20:00 -:-- --
4
Mo VTR 2 REC MODE SP
ON OFF PROG
16 D 20:00 20:50 --
5
Mo VTR 2 REC MODE LP
ON OFF PROG
16 D 20:00 20:50 --
6
Mo VTR 2 REC MODE LP TRANSMIT
ON OFF PROG
16 D 20:00 20:50 8
7
Mo VTR 2 REC MODE LP
ON OFF PROG
16 D 20:00 20:50 8
8
Mo VTR 2
16 D 17:19

Operation

Example: To record a programme broadcast from 20:00 to 20:50 on Monday, July 16, 1990 on programme position 8 in the LP mode.

1. **Open the cover of the Commander and press D until 16 appears.**
   The day of the week, Mo (Monday), is automatically set.
2. **Set the recording start hour with TURN ON H.**
3. **Set the recording start minute with TURN ON M.**
4. **Set the recording end hour and minute with TURN OFF H and M.**
5. **Set the recording mode, SP or LP with the REC MODE button.**
6. **Set the programme position with the PROG button.**
   The TRANSMIT indicator blinks to indicate that all of the items are entered.
7. **Point the Commander to the VTR and press TRANSMIT.**
   With a beep sound, the VTR enters the recording standby mode. The PROGRAM LIST appears on the screen for a few seconds.
8. **Close the cover of the Commander so that the present time appears on the LCD display.**
   The VTR turns on, starts recording at the selected time, and turns off after recording ends.


D
INPUT SELECT
Date indication
EVERY Su Mo Tu We Th Fr Sa
Every day
EVERY Mo Tu We Th Fr Sa
Every day except Sunday
EVERY Mo Tu We Th Fr
Every day except Saturday and Sunday
EVERY Sa
Every Saturday
EVERY Fr
Every Friday
EVERY Th
Every Thursday
EVERY We
Every Wednesday
EVERY Tu
Every Tuesday
EVERY Mo
Every Monday
EVERY Su
Every Sunday

To Set Other Programmes

Repeat steps 1 to 6 before step 7.

To record from equipment connected to LINE IN VIDEO/AUDIO/S VIDEO 1 or 2 jacks

Press INPUT SELECT in step 5 to change the indication from PROG — to LINE L1 or LINE L2.

Daily/Weekly Recording

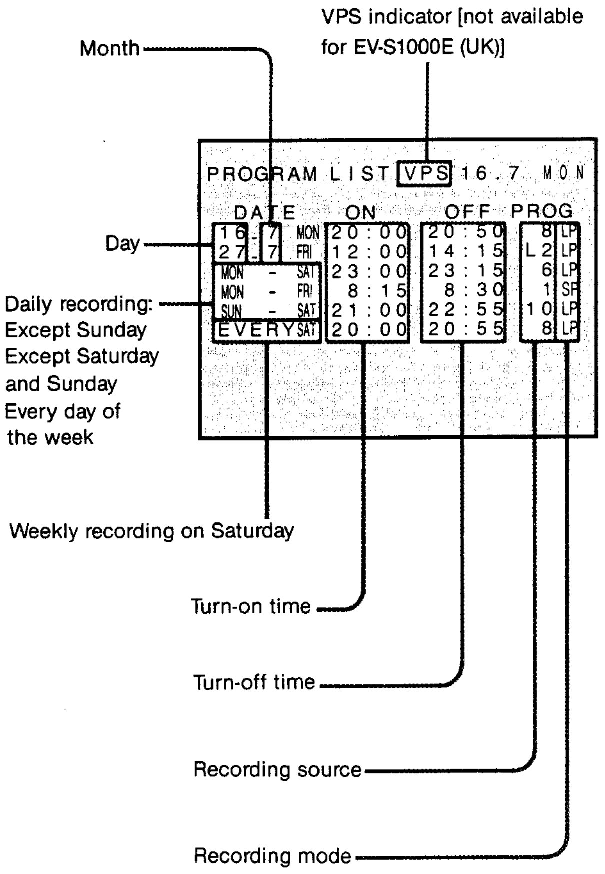
This VTR can be preset to record the same programme each day of the week (daily recording) or the same programme on a specific day of every week.

Instead of step 1 in the "Operation", press D — on the Commander to change the LCD display in the order shown in the illustration. When the desired recording mode is set and transmitted to the VTR, the corresponding indicator lights in the display window.

If a short beep sounds repeatedly when TRANSMIT is pressed

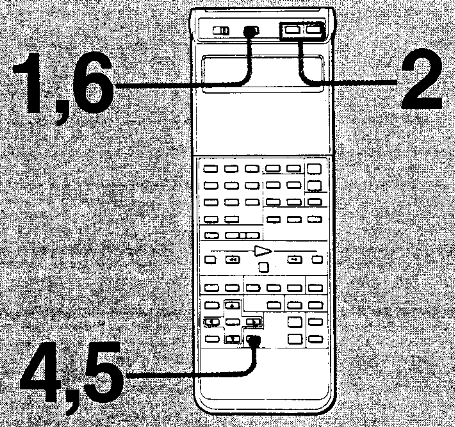
A short beep indicates that the transmission is not received by the VTR. Press TRANSMIT again before closing the cover, then check the items below.

- An illogical setting has been made.
- Timer setting can only be performed when the VTR is turned off, or in the stop, or timer recording mode.
- Six timer settings have already been made.
- The tape is at its end.


Month
VPS indicator [not available for EV-S1000E (UK)]
Day
Daily recording:
Except Sunday
Except Saturday and Sunday
Every day of the week
Weekly recording on Saturday
Turn-on time
Turn-off time
Recording source
Recording mode

PROGRAM LIST VPS 16.7 MON

DATE		ON	OFF	PROG	
16.7	MON	20:00	20:50	8	LP
27.7	FRI	12:00	14:15	L 2	LP
MON - SAT		23:00	23:15	6	LP
MON - FRI		8:15	8:30	1	SP
SUN - SAT		21:00	22:55	10	LP
EVERY SAT		20:00	20:55	8	LP



Checking the Timer Settings

The timer settings can be checked by displaying the PROGRAM LIST on the screen. If the power to the VTR is turned on, simply press TIMER ON SCREEN. If the VTR is in the timer recording standby mode, follow the procedure below.

1 **Press TIMER REC (ON/OFF) to turn off the TIMER REC indicator in the display window.**

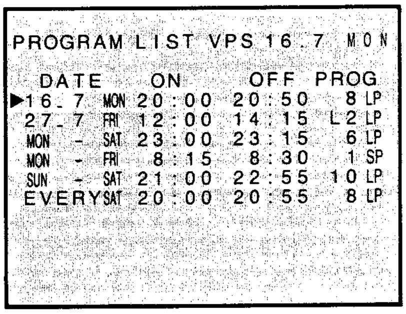
2 **Turn on the VTR and press TV/VTR to light the VTR indicator.**

3 **Turn on the TV.**
Set to the programme position for VTR playback if the VTR — TV connection is made via the AERIAL OUT socket on the VTR. Select VTR input on the TV if the VTR — TV connection is made via MONITOR OUT EURO-AV/S VIDEO or LINE OUT VIDEO/AUDIO/S VIDEO jacks.

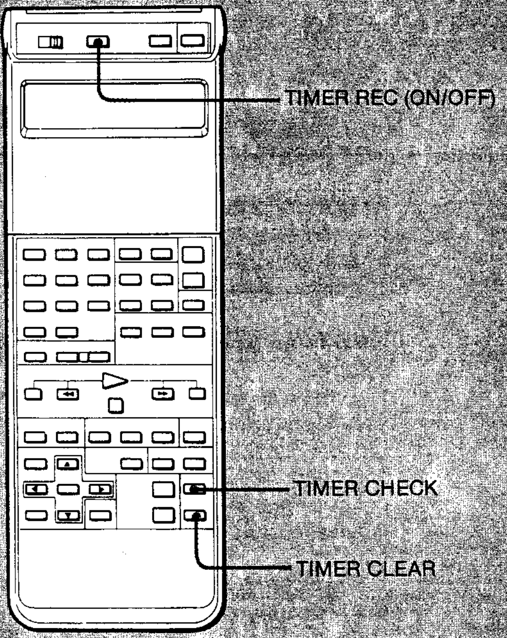
4 **Press TIMER ON SCREEN.**
The PROGRAM LIST display appears on the screen.

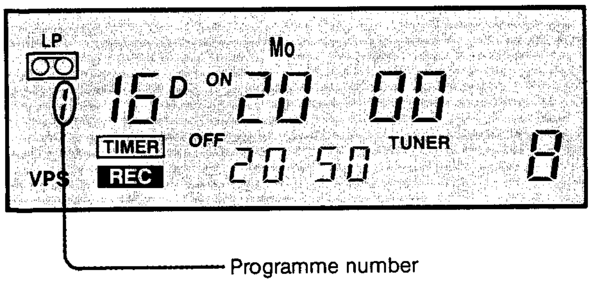
5 **Press TIMER ON SCREEN again to return to the original screen.**

6 **Press TIMER REC (ON/OFF) to return to the timer recording standby mode.**



```
PROGRAM LIST VPS 16.7  MON

  DATE      ON       OFF   PROG
▶16.7  MON 20:00  20:50    8 LP
 27.7  FRI 12:00  14:15   L2 LP
 MON  - SAT 23:00  23:15    6 LP
 MON  - FRI  8:15   8:30    1 SP
 SUN  - SAT 21:00  22:55   10 LP
 EVERY SAT 20:00  20:55    8 LP
```





Clearing/Correcting the Timer Setting

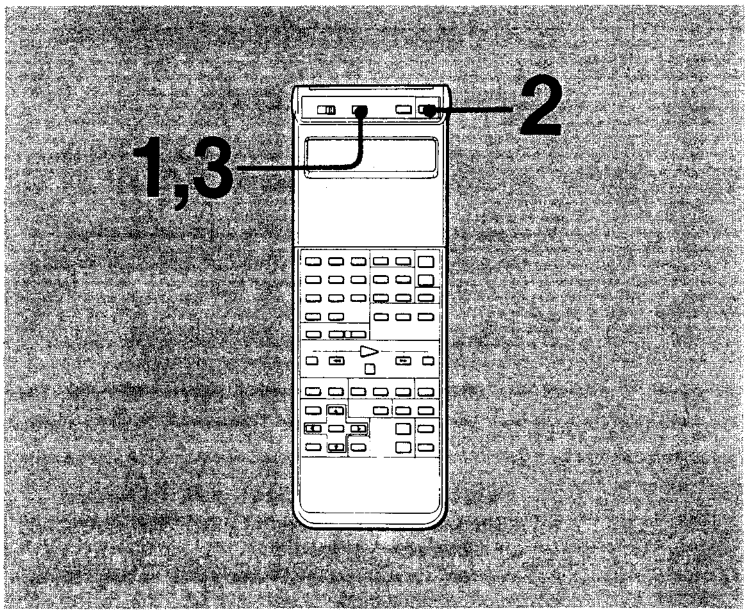
Referring to the PROGRAM LIST

1. **Display the PROGRAM LIST referring to steps 1 to 4 in "Checking the Timer Settings."**
2. **Press TIMER CHECK to call up the cursor on the screen and move the cursor to the setting you want to correct or clear.**
3. **To clear the setting, press TIMER CLEAR.**
   If there are other timer settings on the PROGRAM LIST display, press TIMER REC ON/OFF to return to the timer recording standby mode.

To correct the setting, re-enter all of the items using the Commander. Refer to "Timer Recording — Operation" steps 1 to 7.
In this case, the VTR automatically enters the timer recording standby mode.

Clearing the setting without the PROGRAM LIST

1. **Press TIMER REC (ON/OFF).**
2. **Press TIMER CHECK repeatedly until the desired programme appears.**
3. **Press TIMER CLEAR.**
4. **Press TIMER REC (ON/OFF) to return to the timer recording standby mode if there are other programmes set for timer recording.**

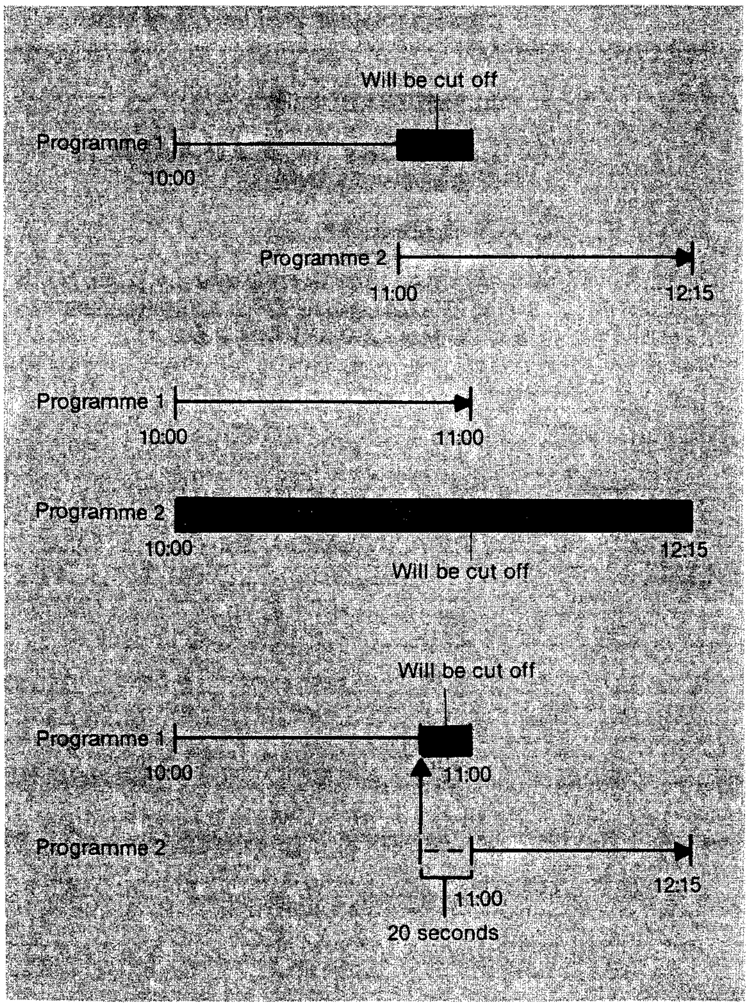


Using the VTR during Timer Recording Standby Mode

1 **Press TIMER REC (ON/OFF) to turn off the TIMER REC indicator.**

2 **Turn on the power of the VTR.**
The VTR is ready to be used.

3 **After using the VTR, press TIMER REC (ON/OFF) and turn on the TIMER REC indicator to re-enter the standby mode for timer recording.**


Will be cut off
Programme 1
10:00
Programme 2
11:00
12:15
Programme 1
10:00
11:00
Programme 2
10:00
Will be cut off
12:15
Will be cut off
Programme 1
10:00
11:00
Programme 2
11:00
12:15
20 seconds

When the Timer Settings Overlap

If the setting of two programmes overlap

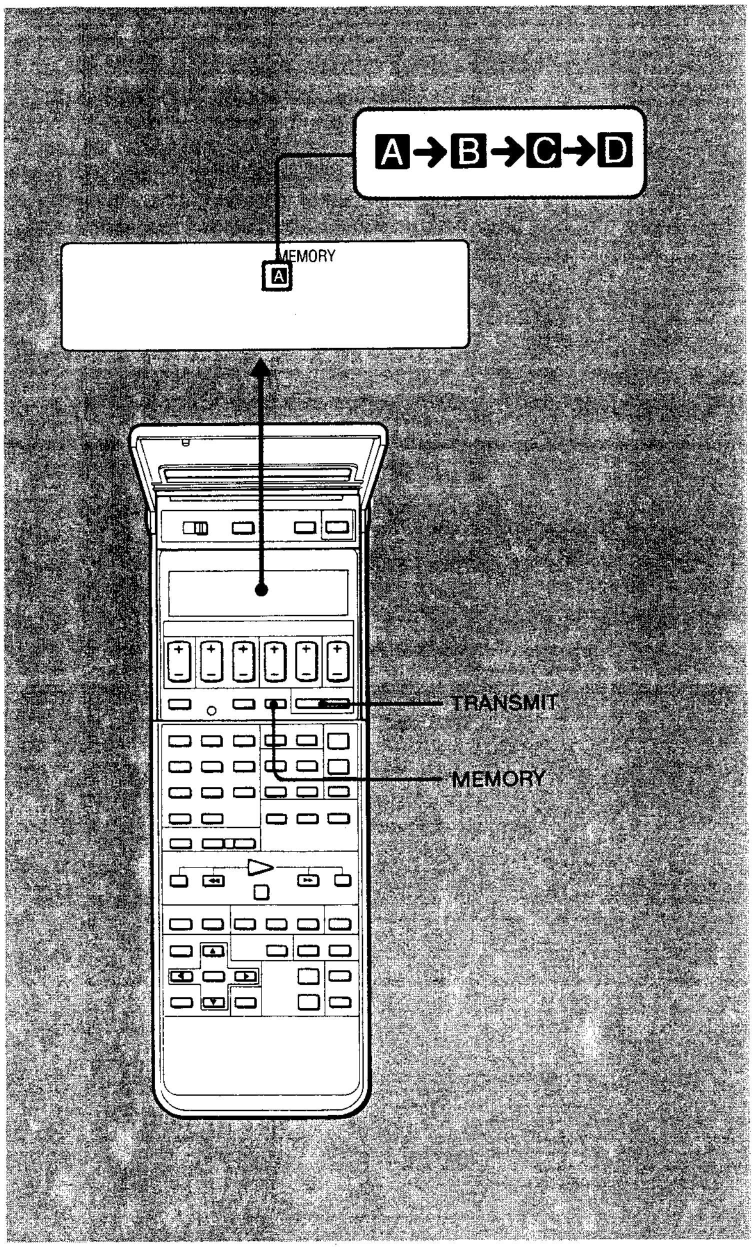
The recording of the following programme will begin automatically before the proceeding programme ends.

If the turn on time of two programmes are the same

The VTR will record the programme with the smaller programme number or listed first on the programme list.
The programme with the larger programme number or listed lower in the list will be cleared from the programme list.

If the recording end time of programme 1 and the recording start time of programme 2 are the same

The last 20 seconds of programme 1 will not be recorded because the VTR will enter the recording pause mode for programme 2 before programme 1 ends.



To Store the Frequently Used Items in the Commander

The items selected for one timer recording programme will be erased from the LCD when the Commander cover is closed. It will be cleared from the programme list when recording is over. However, the turn-on/turn-off time and the programme position of up to four programmes can be stored in the Commander to be recalled later. This enables you to quickly access the most frequently used items, especially your favorite weekly programmes. The recording date will automatically be shifted to the next week after the recording is over.

Operation

Example: To store a timer recording data in MEMORY A.

1 **Press MEMORY to indicate MEMORY A.**

2 **Set all of the items for timer recording referring to "Timer Recording — Operation."**

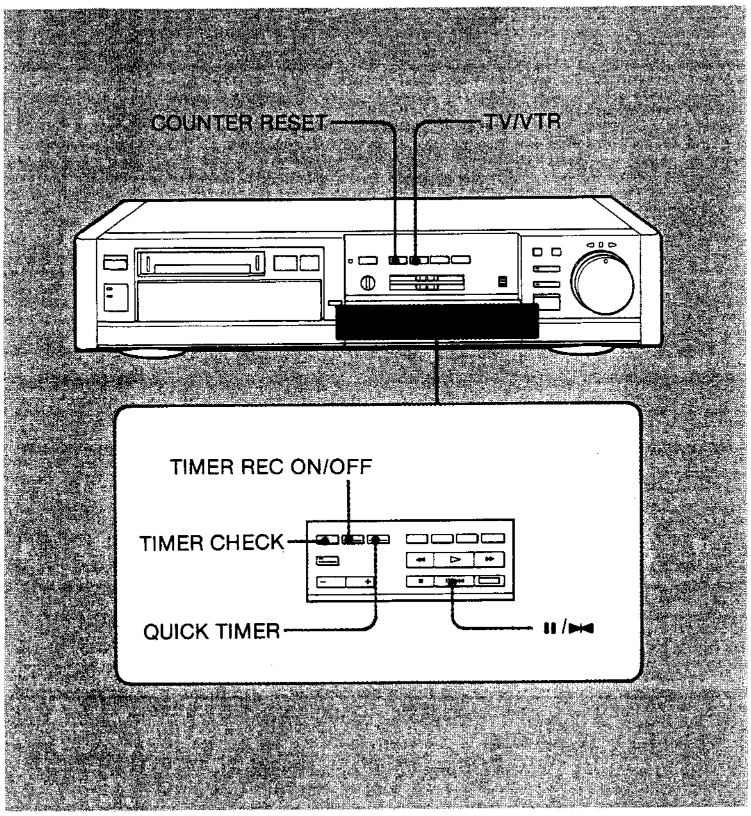
3 **Press MEMORY to change the indication to B, C, or D, and repeat step 2 for other programmes.**
The items set will be kept in the memory even when the Commander cover is closed.

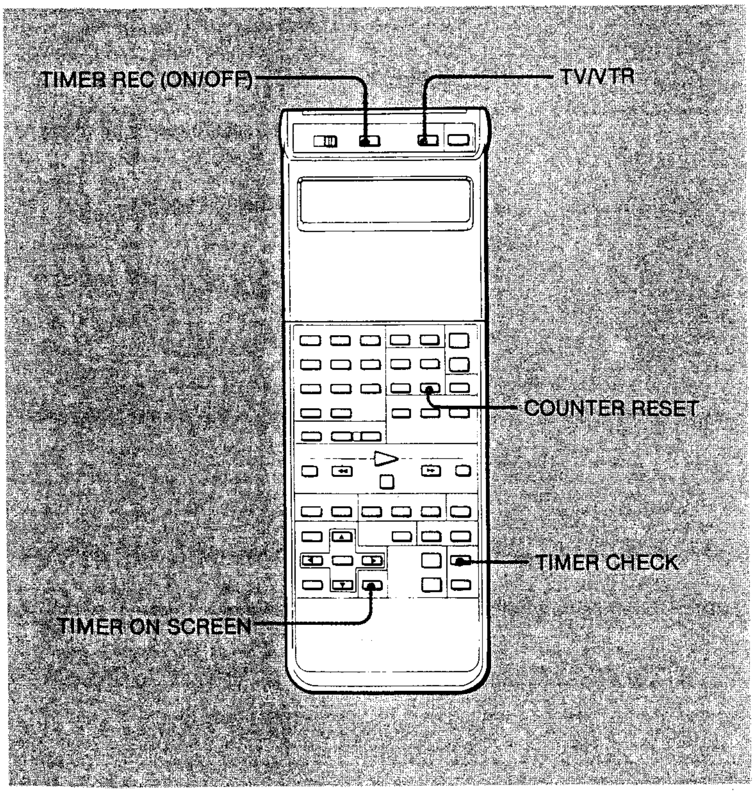
Recalling and changing the items

1 **Press MEMORY to call up the desired memory indication (A, B, C, or D).**

2 **Make whatever changes necessary.**

3 **Press TRANSMIT.**
The VTR enters the timer recording standby mode.


COUNTER RESET
TV/VTR
TIMER REC ON/OFF
TIMER CHECK
QUICK TIMER
II /▶◀


TIMER REC (ON/OFF)
TV/VTR
COUNTER RESET
TIMER CHECK
TIMER ON SCREEN

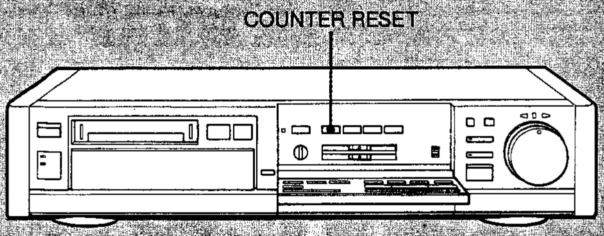
Buttons operable during quick timer recording

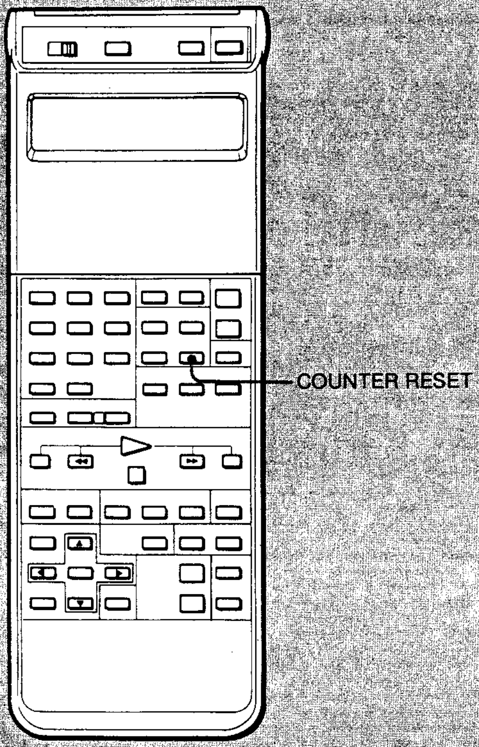
- II /▶◀ stops quick timer recording momentarily.
- **TIMER REC ON/OFF** stops timer recording.
- **QUICK TIMER** changes the recording duration.
- **TIMER ON SCREEN** displays the PROGRAM LIST.
- **TIMER CHECK** moves the cursor in the PROGRAM LIST or changes the programme number in the display window.
- **COUNTER RESET** resets the counter to zero.
- **TV/VTR** switches the screen to another programme received on the TV.

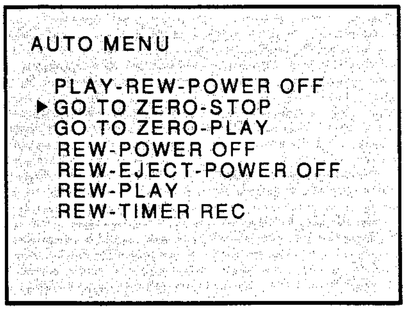
If power interruption occurs during quick timer recording
Recording will stop and the VTR will be turned off. If the power interruption lasted for less than one hour, and if the power recovered within the quick timer duration, recording will resume from that instant.

If the unit is in the time recording standby mode
Press TIMER REC ON/OFF to turn off the TIMER REC indicator, then press QUICK TIMER.

Use of the Tape Counter







AUTO MENU

PLAY-REW-POWER OFF
▶GO TO ZERO-STOP
GO TO ZERO-PLAY
REW-POWER OFF
REW-EJECT-POWER OFF
REW-PLAY
REW-TIMER REC

Understanding Counter Zero Position

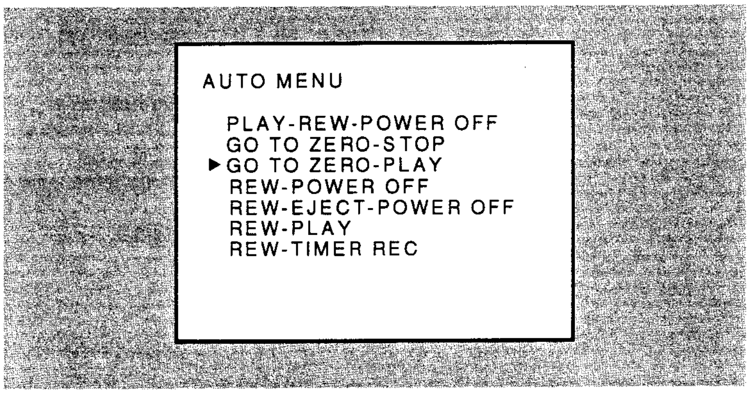
The tape counter on this VTR can be used as a reference when you wish to locate a certain scene after recording or playback. Press COUNTER RESET to set the counter to "0H00M00S" (counter zero position) before operation.
The VTR will keep counting the length of tape being played back or recorded.

Tape Return

The VTR can search for the counter zero position and stop. This function is useful for locating a particular scene after recording or playback.

1. **Press COUNTER RESET at the desired scene during recording or playback.**
2. **Press ■ to stop after recording or playback.**
3. **Press MENU and select AUTO MENU.**
   See "Assigning a Desired Operation Mode" (page 45) for operation.
4. **Move cursor to "GO TO ZERO — STOP."**
5. **Press EXECUTE.**

Use of the Tape Counter


AUTO MENU
PLAY-REW-POWER OFF
GO TO ZERO-STOP
▶GO TO ZERO-PLAY
REW-POWER OFF
REW-EJECT-POWER OFF
REW-PLAY
REW-TIMER REC

Tape Return Play

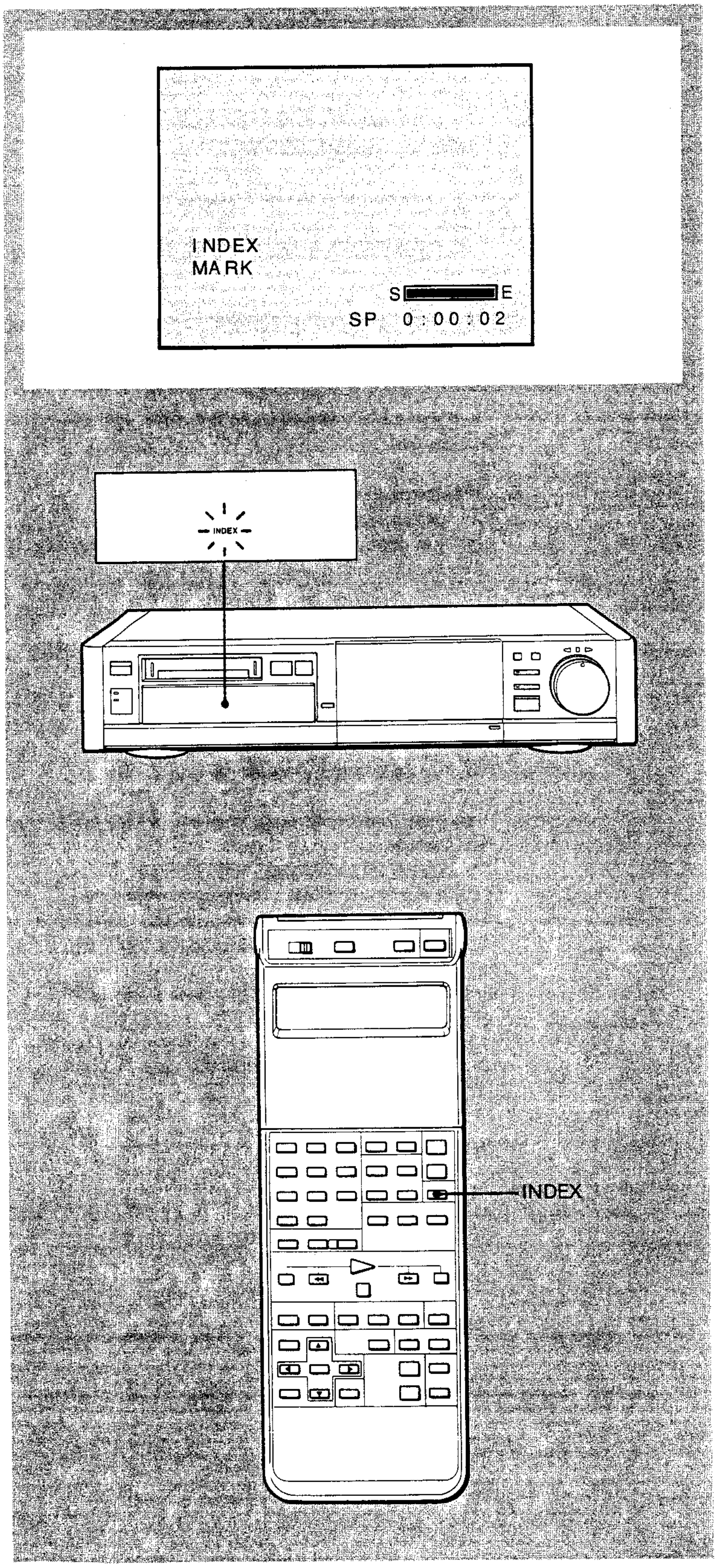
The VTR will even search and start playback from the counter zero position after recording or playback.

1. **Repeat steps 1 to 3 in the "Tape Return" operation.**
2. **Move cursor to "GO TO ZERO — PLAY"**
3. **Press EXECUTE.**

Notes

- The counter reading and the point on the tape may not correspond exactly. Use the counter as a reference.
- There will be a time lag of several seconds on the counter reading after repeated fast-forward or rewind operations.
- There will be a time lag of several seconds when a tape recorded in LP and SP mixed or a tape with blank portion between recordings is played back.
- If tape return or tape return play is operated within ±1 minute, it may take extra time to search for the 0H00M00S point.
- The tape will stop at the approximate "0H00M00S" point during tape return operation.

Index Function



Marking Index Signals

The desired position on a tape can be located easily by detecting the index signals. There are two ways in which to mark index signals, automatic and manual.
When the index signal is being marked, INDEX flashes in the display window and INDEX MARK lights on the TV screen.

Automatic index mark

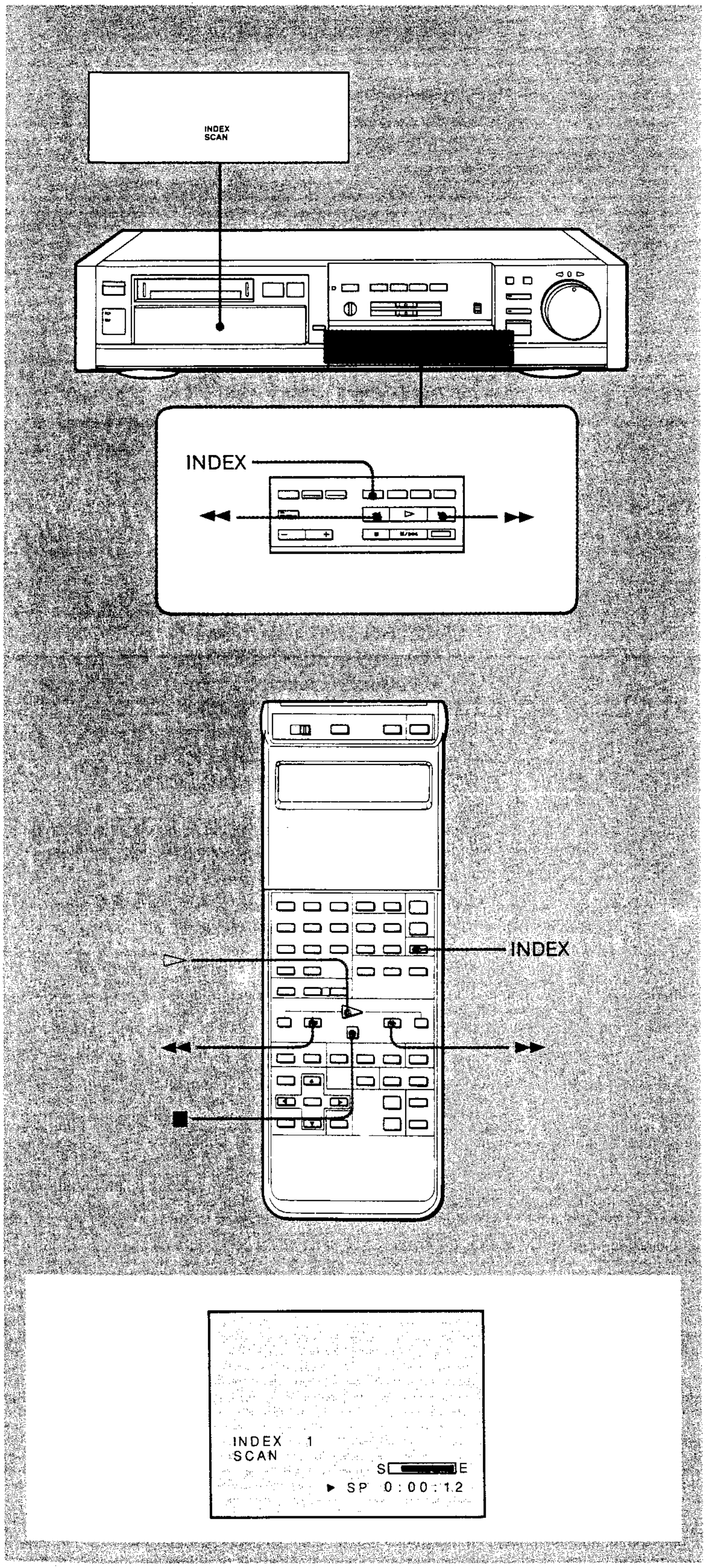
An index signal is automatically marked on the tape when the VTR starts recording.

Manual index mark

Index signals can be marked at desired scenes during recording or playback. Press INDEX MARK to mark an index.

Notes

- Leave an interval of more than 2 minutes between two index points so that the VTR can detect each INDEX signal accurately.
- The sound recorded on the tape will not be heard and a black bar appears at the bottom of the picture while the index signal is being marked during playback.
  However, the recorded signals are not affected.
- When the EDIT indicator is turned on in the display window, marking or erasing of index signals cannot be performed.
- Index signals cannot be marked on a tape whose safety tab is slid out.



To Scan the Index Points — INDEX SCAN

To scan the beginning of each index point while monitoring the picture

1 **Insert a cassette with index signals marked.**

2 **Press INDEX in the playback or playback pause mode.**

3 **Press ►► to advance and ◄◄ to go back to the next index.**
The tape will be scanned forward with ►► and scanned in reverse with ◄◄ to the next index point and will be played back for approximately 10 seconds.

4 **To continue playback, press ▷.**
When no button is pressed, the picture is automatically scanned to the next or previous index.

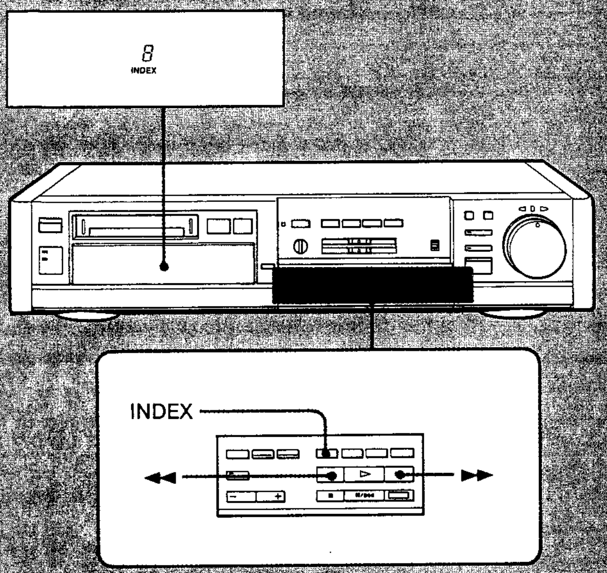
To scan the beginning of each index point without viewing the picture

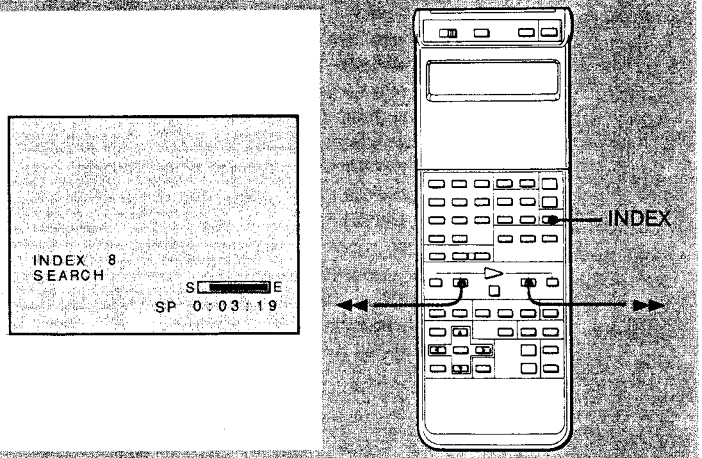
1 **Insert a cassette with index signals.**

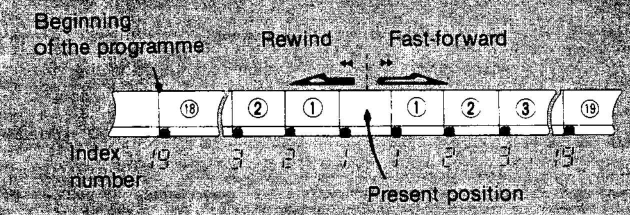
2 **Press INDEX in the stop mode.**

3 **Press ►► to advance and ◄◄ to go back to the next index.**
The tape will be advanced with ►► and rewound with ◄◄ to the index mark point without picture on the screen and then will be played back for approximately 10 seconds.

4 **Press ▷ to continue playback from that index point.**
When no button is pressed, the picture will be automatically scanned to the next or previous index.


8
INDEX
INDEX
◀◀
▶▶


INDEX 8
SEARCH
S E
SP 0:03:19
INDEX
◀◀
▶▶


Beginning of the programme
Rewind
Fast-forward
⑱
②
①
①
②
③
⑲
Index number
19
3
2
1
1
2
3
19
Present position

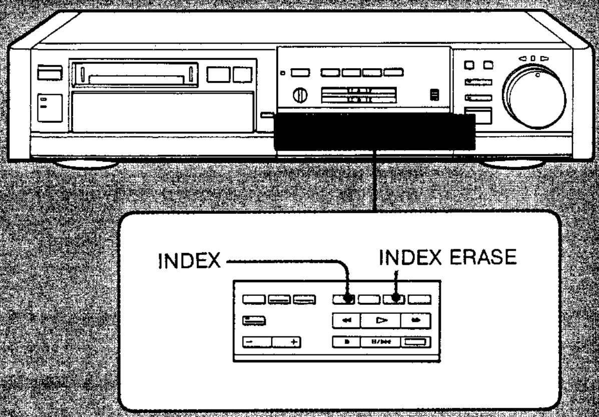
To Search for the Index Point — INDEX SEARCH

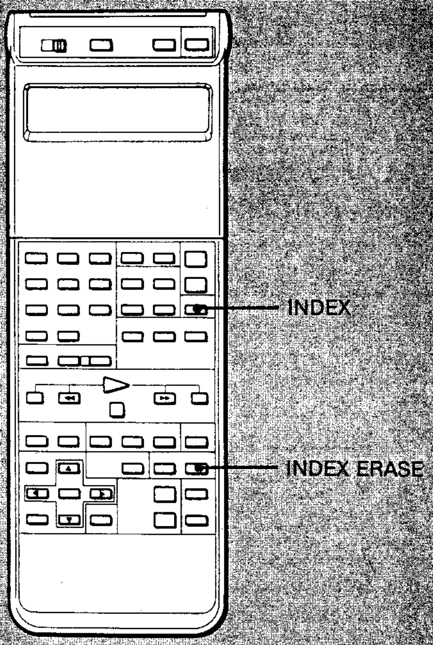
Direct search of the desired index point can be performed by assigning the number of how many indexes ahead or behind it is from the current tape position. Up to 19 indexes from the current position can be searched for.
The VTR counts down how many more indexes should be searched for and displays the number on the TV screen and in the display window.

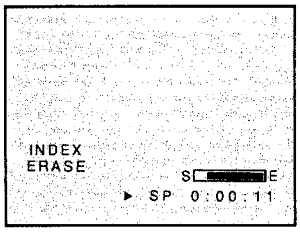
1. **Insert a cassette with index signals.**
2. **Press INDEX in the stop or playback or playback pause mode.**
3. **Press INDEX again until the number of indexes that should be counted to reach the desired scene is displayed on the TV screen and the display window.**
4. **Press ◀◀ if the index is behind or ▶▶ if the index is ahead of the current tape position.**
   The VTR starts searching and the index number will be counted down to zero. Playback starts.

To correct the index number

Press ■ and repeat steps **2** to **4** above.







Erasing an Index

The index marked on the tape can be erased.

1 Insert a cassette with index signals.

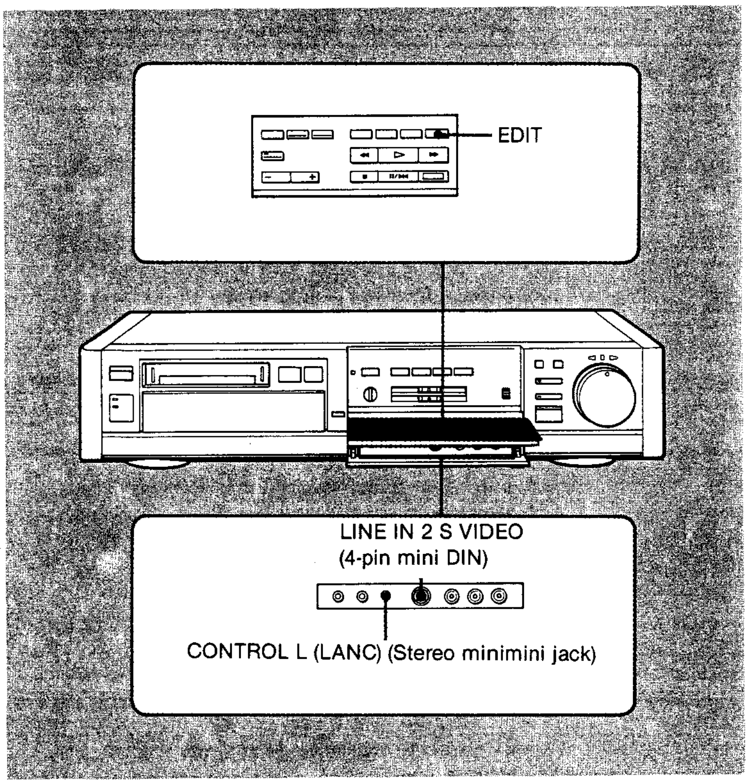
2 Locate the index to be erased by index scan or index search.

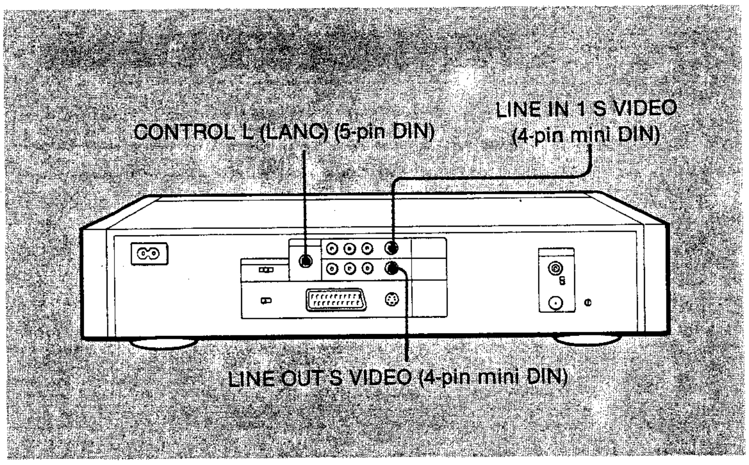
3 Within approximately 10 seconds, while the tape is being played back, press INDEX ERASE.
When the index signal is erased during index scan mode, index scan will resume.
When the index signal is erased during index search mode, normal playback will begin.

Notes

- Press INDEX ERASE more than 2 seconds after the playback starts.
- If the safety tab on the cassette is slid out, the index signal cannot be erased.
- While an index signal is being erased, the original sound recorded on the tape cannot be heard and a black bar appears at the bottom of the playback picture.
  However, recorded signals are not affected.
- When the EDIT indicator is turned on in the display window, marking or erasing of index signals cannot be performed.
- The index signals marked by a VTR such as the EV-S850 series can be detected with this unit but cannot be erased. The index signals marked by this unit can be detected with a VTR such as the EV-S850 series but cannot be erased.
- When the audio is dubbed in the portion where an index was marked, the index signal may be erased.

Before Editing


EDIT
LINE IN 2 S VIDEO
(4-pin mini DIN)
CONTROL L (LANC) (Stereo minimini jack)


CONTROL L (LANC) (5-pin DIN)
LINE IN 1 S VIDEO
(4-pin mini DIN)
LINE OUT S VIDEO (4-pin mini DIN)

You can create your own video programme by editing with other VTRs. Take a look at the following examples to expand your pleasure in video operation.

Use of the EDIT mode

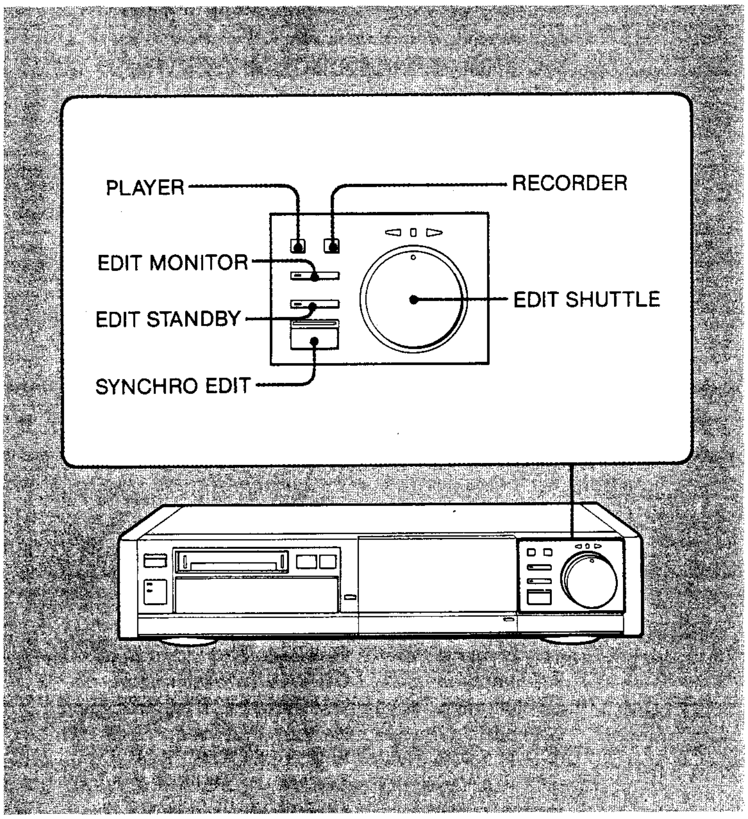
The EDIT mode activated by the EDIT button on the unit enables playback of a higher quality picture during editing. If your other VTR is equipped with this function, turn it on. However, note that even when using the EDIT mode during editing, the quality of the edited tape will have a certain extent of degradation in picture and sound. Avoid using the edited tape for multiple generations of editing.

Use of the CONTROL L (LANC) connector

If your second VTR is equipped with a Sony control terminal LANC CONTROL L connector (stereo minimini jack or 5-pin DIN type), synchronized editing can be performed. The second VTR can be remotely controlled with this VTR by using the editing section on the front panel. Refer to the following example for the actual settings and operation to perform synchronized editing.

Use of the S VIDEO jacks

Check whether your second VTR is equipped with S VIDEO input or output jacks. Use of the S VIDEO jacks will result in higher quality edited picture.


PLAYER
RECORDER
EDIT MONITOR
EDIT STANDBY
EDIT SHUTTLE
SYNCHRO EDIT

Useful Functions during Synchronized Editing

EDIT SHUTTLE

Enables quick access to the desired scene, both on the recorder and the player.

PLAYER/RECORDER buttons and indicator

Turns on to indicate which VTR should be controlled by the EDIT SHUTTLE.

EDIT MONITOR button

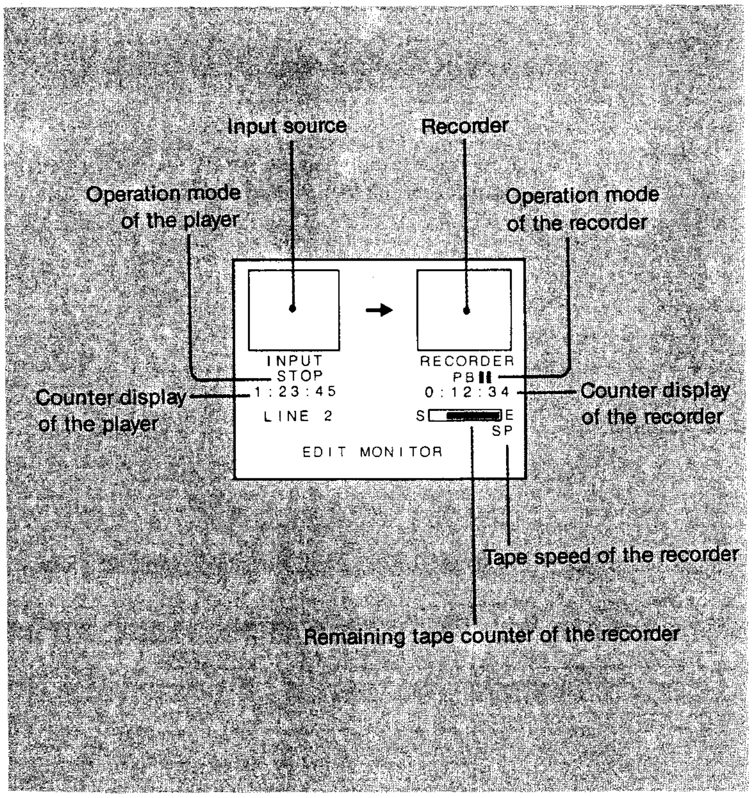
Displays the picture of the recorder as well as the input source on the screen.

EDIT STANDBY button

Automatically displays the EDIT MONITOR screen with the recorder in the recording pause mode and the player in the playback pause mode. LINE IN 2 will be automatically be selected as the input source.

Note

When controlling the other VTR with the EDIT SHUTTLE, turn the EDIT SHUTTLE slowly not to go past the desired tape speed position.


Input source
Recorder
Operation mode of the player
Operation mode of the recorder
INPUT
STOP
1 : 23 : 45
LINE 2
RECORDER
PB ❚❚
0 : 12 : 34
S E
SP
EDIT MONITOR
Counter display of the player
Counter display of the recorder
Tape speed of the recorder
Remaining tape counter of the recorder

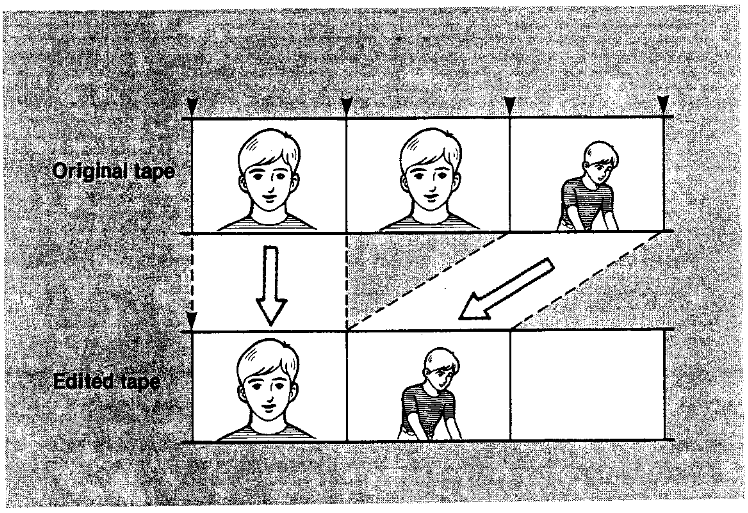
EDIT MONITOR Display during Editing

Notes

- The cable with an ∗ (asterisk) is optional.
- The ⇨ mark indicates the signal flow.

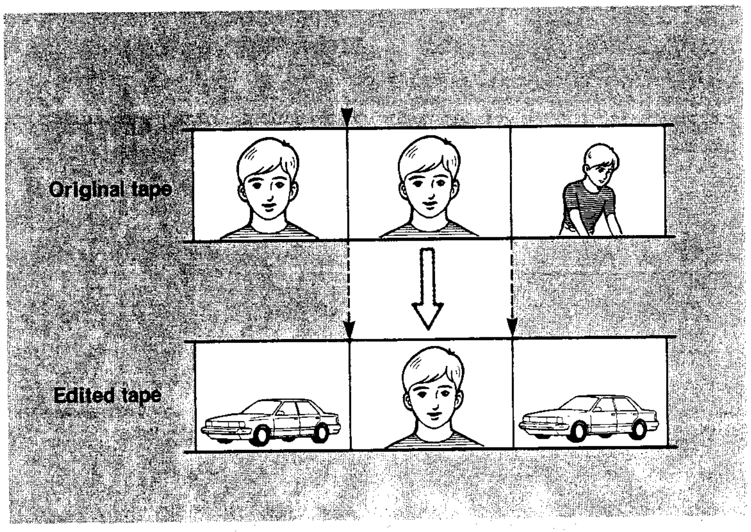
Various Tape Editing Methods

Various methods for easy and accurate tape editing are available with the VTR. Select the method according to your purpose and to the video/audio equipment you are using.


Original tape
Edited tape

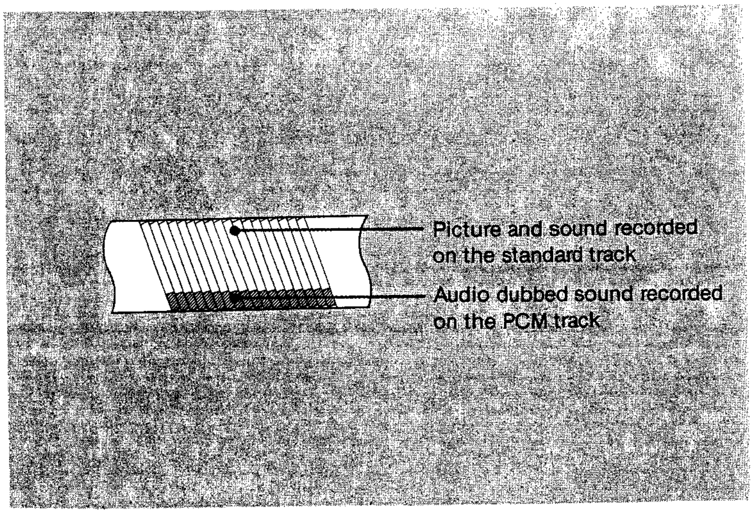
Assemble Editing

Only the desired portions of an original tape can be edited onto another tape, one portion at a time.


Original tape
Edited tape

Insert Editing

A prerecorded portion of a tape can be replaced with a new scene. Decide the start point and the end point on the recording VTR.


Picture and sound recorded on the standard track
Audio dubbed sound recorded on the PCM track

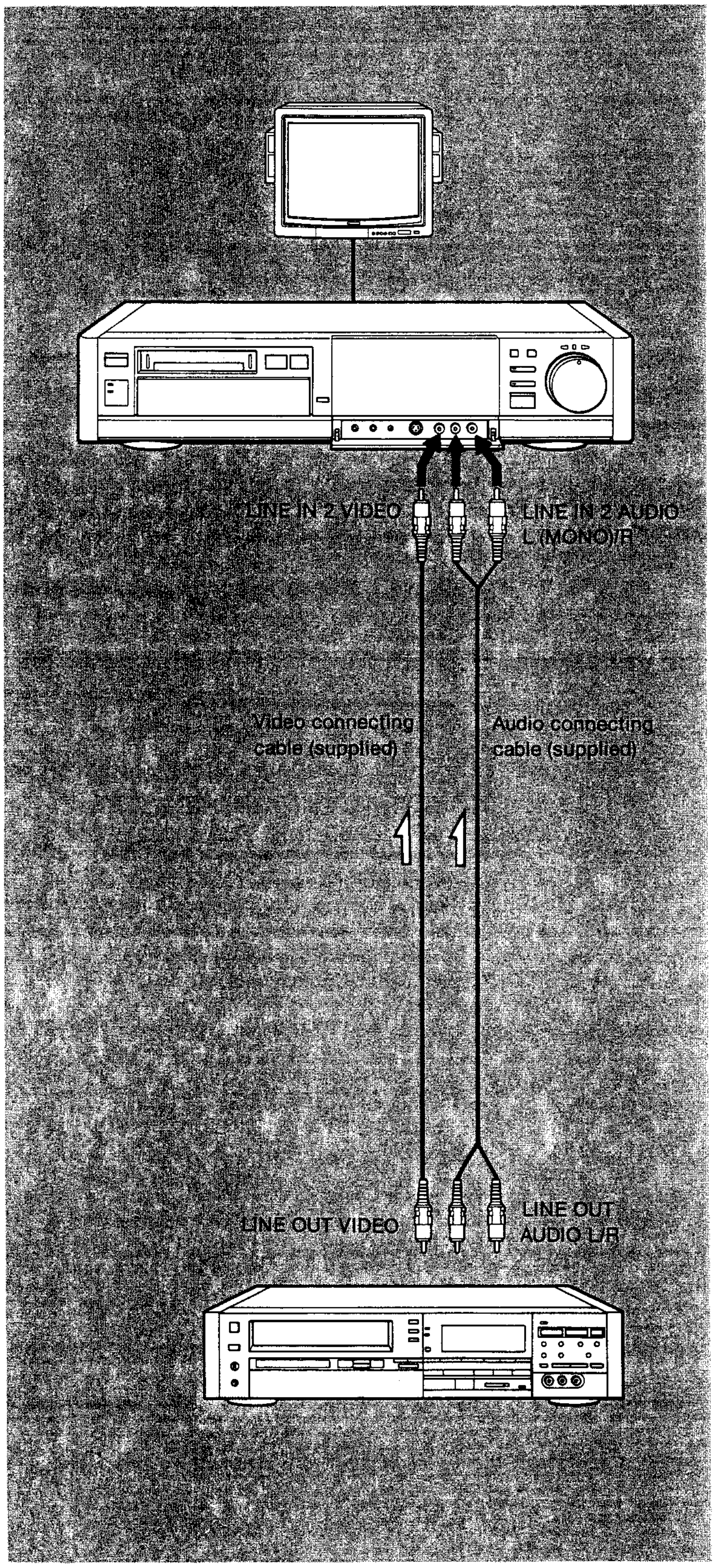
Audio dubbing

The sound recorded on the PCM audio track can be replaced with a new sound without changing the picture and sound recorded on the standard track.

Notes

- The picture may be distorted at the end point of an insert editing.
- Playback in various speeds may be distorted when edited from or onto another VTR.

Editing Method	P: player R: recorder	Page
Basic Editing	P: VTR R: This VTR	79
	P: This VTR R: VTR	80
Assemble Editing (Using the Synchronzied Editing Function)	P: 8 mm camera recorder with REMOTE (stereo minimini) jack R: This VTR	81
	P: 8 mm or VHS VTRs with a CONTROL L (LANC) (5-pin DIN) connector R: This VTR	84
Insert Editing (Using the Synchronized Editing Function)	P: 8 mm camera recorder with REMOTE (stereo minimini) jack R: This VTR	87
Manual Assemble Editing	P: VTR R: This VTR	90
Manual Insert Editing	P: VTR R: This VTR	92
Audio Dubbing	P: a) Audio system b) Microphone R: This VTR	94


LINE IN 2 VIDEO
LINE IN 2 AUDIO L (MONO)/R
Video connecting cable (supplied)
Audio connecting cable (supplied)
LINE OUT VIDEO
LINE OUT AUDIO L/R

(1) Editing a Tape from Another VTR

Connection

- Make connections referring to the illustration.
- If the other VTR is equipped with an S VIDEO output connector, make the connection.
- If the other VTR is a monaural type, connect the white plug to the other VTR's audio output jack and the white plug on the other end to the LINE IN 2 AUDIO L (MONO) jack of this VTR.

Preparation

On the other VTR = player

- Activate the EDIT mode if it is equipped.

On this VTR = recorder

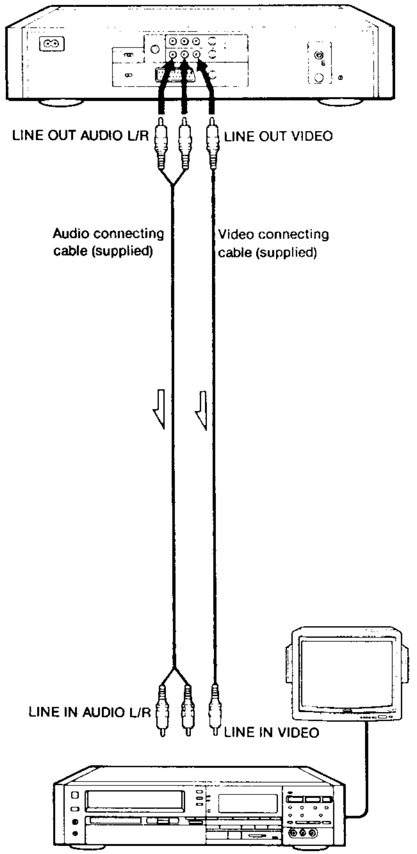
- Select the line input that the player is connected to with INPUT SELECT.
- Select the recording mode SP or LP with REC MODE.
- Adjust the recording level with REC LEVEL (page 52).

Operation

1. **Turn on the power to both units.**
2. **Insert a source tape into the player. Insert a tape for recording into the recorder.**
3. **Playback with the player and record with the recorder.**

Note

Avoid making both the VIDEO and S VIDEO connection at the same time.


LINE OUT AUDIO L/R
LINE OUT VIDEO
Audio connecting cable (supplied)
Video connecting cable (supplied)
LINE IN AUDIO L/R
LINE IN VIDEO

(2) Editing a Tape to Another VTR

Connection

- Make connections referring to the illustration.
- If the other VTR is equipped with an S VIDEO input connector, make the connection.
- If the other VTR is a monaural type, make connections with the optional RK-C71 audio connecting cable.

Preparation

On this VTR = player

- Set AUDIO MONITOR to the appropriate position referring to "Selecting the Monitor Sound" page 36.
- Activate the EDIT mode.

On the other VTR = recorder

- Select the line input that the player is connected to.
- Activate the EDIT mode if it is equipped

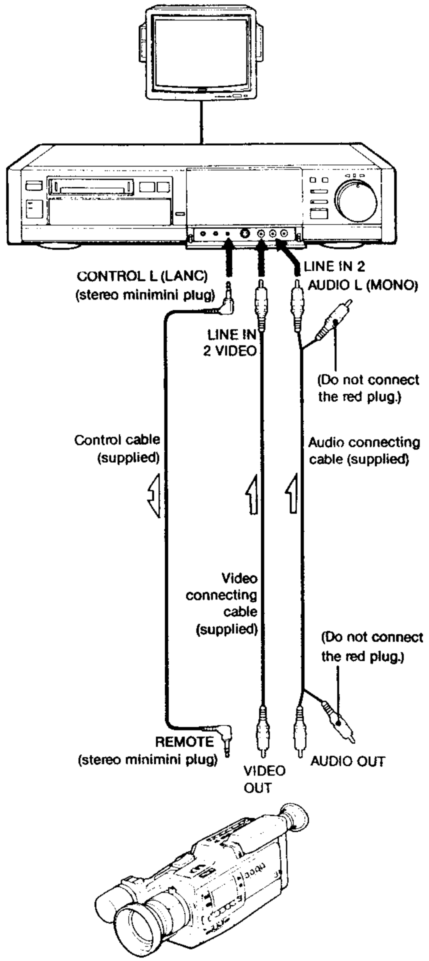
Operation

1 **Turn on the power to both units.**

2 **Insert a source tape into the player. Insert a tape for recording into the recorder.**

3 **Playback with the player and record with the recorder.**

Synchronized Editing


CONTROL L (LANC)
(stereo minimini plug)
LINE IN 2
AUDIO L (MONO)
LINE IN 2 VIDEO
(Do not connect the red plug.)
Control cable (supplied)
Audio connecting cable (supplied)
Video connecting cable (supplied)
(Do not connect the red plug.)
REMOTE
(stereo minimini plug)
VIDEO OUT
AUDIO OUT

(1) Editing a Tape from a 8 mm Camera Recorder

Connection

- Make connections referring to the illustration.
- If the camera recorder is equipped with an S VIDEO output connector, make the connection.
- If the other VTR is a monaural type, connect the white plug to the other VTR's audio output jack and the white plug on the other end to the LINE IN 2 AUDIO L (MONO) jack of this VTR.

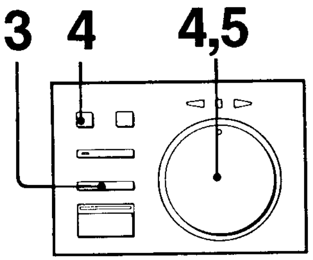
Preparation

On the other VTR = player

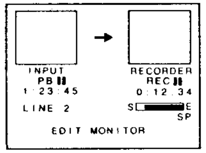
- Activate the EDIT mode if it is available
- Select LANC MODE S or the equivalent if selection is available.

On this VTR = recorder

- Select LANC MODE M in the MODE SET menu (page 30).
- Select the recording mode SP or LP with REC MODE.
- Adjust the recording level with REC LEVEL (page 52).
- Check the other VTR and select SHUTTLE MODE A or B in the MODE SET menu (page 30).

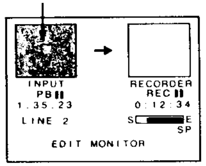


3


INPUT
PB ❚❚
1:23:45
LINE 2
RECORDER
REC ❚❚
0:12:34
S E
SP
EDIT MONITOR

4,5

Decide the edit point.


INPUT
PB ❚❚
1:35:23
LINE 2
RECORDER
REC ❚❚
0:12:34
S E
SP
EDIT MONITOR

Operation

1 **Turn on the power to both units.**

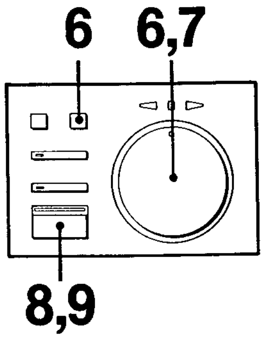
2 **Insert a source tape into the player. Insert a tape for recording into the recorder.**

3 **Press EDIT STANDBY on the recorder.**
The EDIT MONITOR screen will be displayed.
LINE IN 2 will automatically be selected for the player.
The PLAYER control button will be turned on.
The recorder enters the recording pause mode.
The player enters the playback pause mode.

4 **Check that the PLAYER control button is turned on and turn the EDIT SHUTTLE to locate the start point of the player.**
The available playback speeds are: REVIEW, PB ❚❚ (when EDIT SHUTTLE is released), × 1/5 (slow forward), PB (normal speed forward), and CUE.

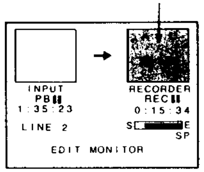
Note
× 1/5 speed playback on the other VTR is controllable if × 1/5 speed playback is available on the other VTR.

5 **Release the EDIT SHUTTLE when the desired point is found.**
The player enters the playback pause mode.

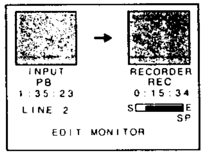


6
7

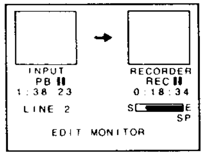
Decide the edit point.


INPUT
PB ❚❚
1:35:23
LINE 2
RECORDER
REC ❚❚
0:15:34
S E
SP
EDIT MONITOR

8


INPUT
PB
1:35:23
LINE 2
RECORDER
REC
0:15:34
S E
SP
EDIT MONITOR

9


INPUT
PB ❚❚
1:38:23
LINE 2
RECORDER
REC ❚❚
0:18:34
S E
SP
EDIT MONITOR

6 **Press RECORDER control button to turn it on and turn the EDIT SHUTTLE to locate the start point of the recorder.**
The available playback speeds are: REVIEW, – × 1 (normal speed reverse), REC ❚❚ (when the EDIT SHUTTLE is released), × 1/5 (slow forward), × 1 (normal speed forward), and CUE

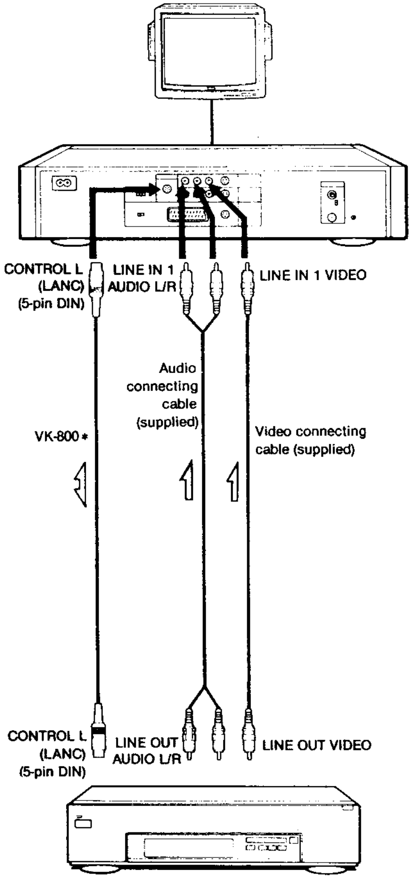
7 **Release the EDIT SHUTTLE when the desired point is found.**
The recorder enters the recording pause mode.

8 **Press SYNCHRO EDIT.**
The player will start playback and the recorder starts recording.

9 **Press SYNCHRO EDIT at the edit end point.**
The player will enter the playback pause mode and the recorder enters the recording pause mode.

To edit more scenes
Repeat steps **4** to **9**.

When editing is completed
Press EDIT STANDBY. Both units will stop and the EDIT MONITOR display will return to the TV programme screen.


CONTROL L (LANC) (5-pin DIN)
LINE IN 1 AUDIO L/R
LINE IN 1 VIDEO
Audio connecting cable (supplied)
VK-800*
Video connecting cable (supplied)
CONTROL L (LANC) (5-pin DIN)
LINE OUT AUDIO L/R
LINE OUT VIDEO

(2) Editing a Tape from a 8 mm or VHS VTR

Connection

- Make connections referring to the illustration.
- If the other VTR is equipped with an S VIDEO output connector, make the connection.
- If the player is a monaural type, make connections with the optional RK-C71 audio connecting cable.

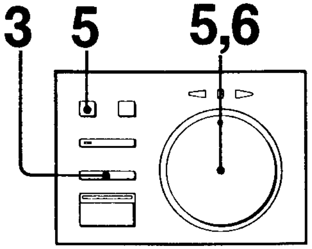
Preparation

On the other VTR = player

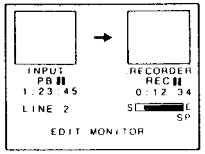
- Activate the EDIT mode if it is available.
- Select LANC MODE S or the equivalent if selection is available.

On this VTR = recorder

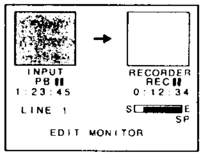
- Select LANC MODE M in the MODE SET menu (page 30).
- Select the recording mode SP or LP with REC MODE.
- Adjust the recording level with REC LEVEL (page 52).
- Check the other VTR and select SHUTTLE MODE A or B in the MODE SET menu (page 30).



3

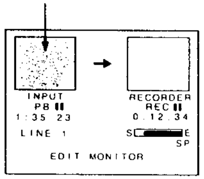

INPUT
PB II
1:23:45
LINE 2
RECORDER
REC II
0:12:34
S E
SP
EDIT MONITOR

4


INPUT
PB II
1:23:45
LINE 1
RECORDER
REC II
0:12:34
S E
SP
EDIT MONITOR

5
6

Decide the edit point.

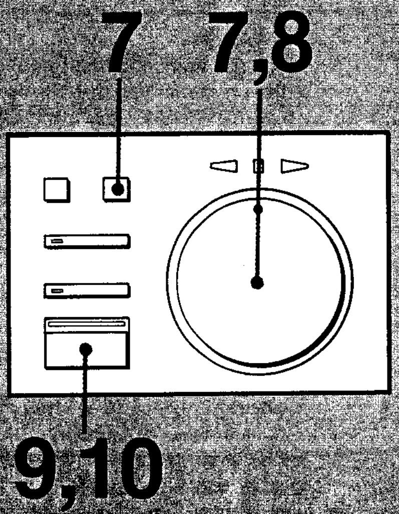

INPUT
PB II
1:35:23
LINE 1
RECORDER
REC II
0:12:34
S E
SP
EDIT MONITOR

Operation

1. **Turn on the power to both units.**
2. **Insert a source tape into the player. Insert a tape for recording into the recorder.**
3. **Press EDIT STANDBY on the recorder.**
   The EDIT MONITOR screen will be displayed.
   The PLAYER control button will be turned on.
   The recorder enters the recording pause mode.
   The player enters the playback pause mode.
4. **Press INPUT SELECT to change the input source display from LINE 2 to LINE 1.**
5. **Check that the PLAYER control button is turned on and turn the EDIT SHUTTLE to locate the start point of the player.**
   The available playback speeds are: REVIEW, PB II (when EDIT SHUTTLE is released), × 1/5 (slow forward), PB (normal speed forward), and CUE.

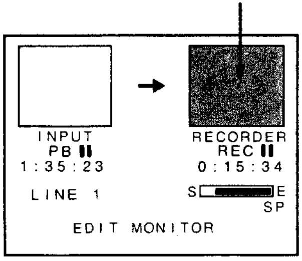
Note
× 1/5 speed playback on the other VTR is controllable if × 1/5 speed playback is available on the other VTR.

6. **Release the EDIT SHUTTLE when the desired point is found.**
   The player enters the playback pause mode.

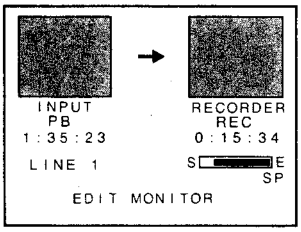


7
8

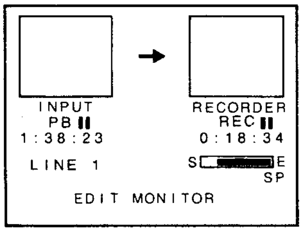
Decide the edit point.


INPUT
PB ❚❚
1 : 35 : 23
RECORDER
REC ❚❚
0 : 15 : 34
LINE 1
S E
SP
EDIT MONITOR

9


INPUT
PB
1 : 35 : 23
RECORDER
REC
0 : 15 : 34
LINE 1
S E
SP
EDIT MONITOR

10


INPUT
PB ❚❚
1 : 38 : 23
RECORDER
REC ❚❚
0 : 18 : 34
LINE 1
S E
SP
EDIT MONITOR

7 **Press RECORDER control button to turn it on and turn the EDIT SHUTTLE to locate the start point of the recorder.**
The available playback speeds are: REVIEW, – x 1 (normal speed reverse), REC ❚❚ (when the EDIT SHUTTLE is released), x 1/5 (slow forward), x 1 (normal speed forward), and CUE.

8 **Release the EDIT SHUTTLE when the desired point is found.**
The recorder enters the recording pause mode.

9 **Press SYNCHRO EDIT.**
The player will start playback and the recorder starts recording.

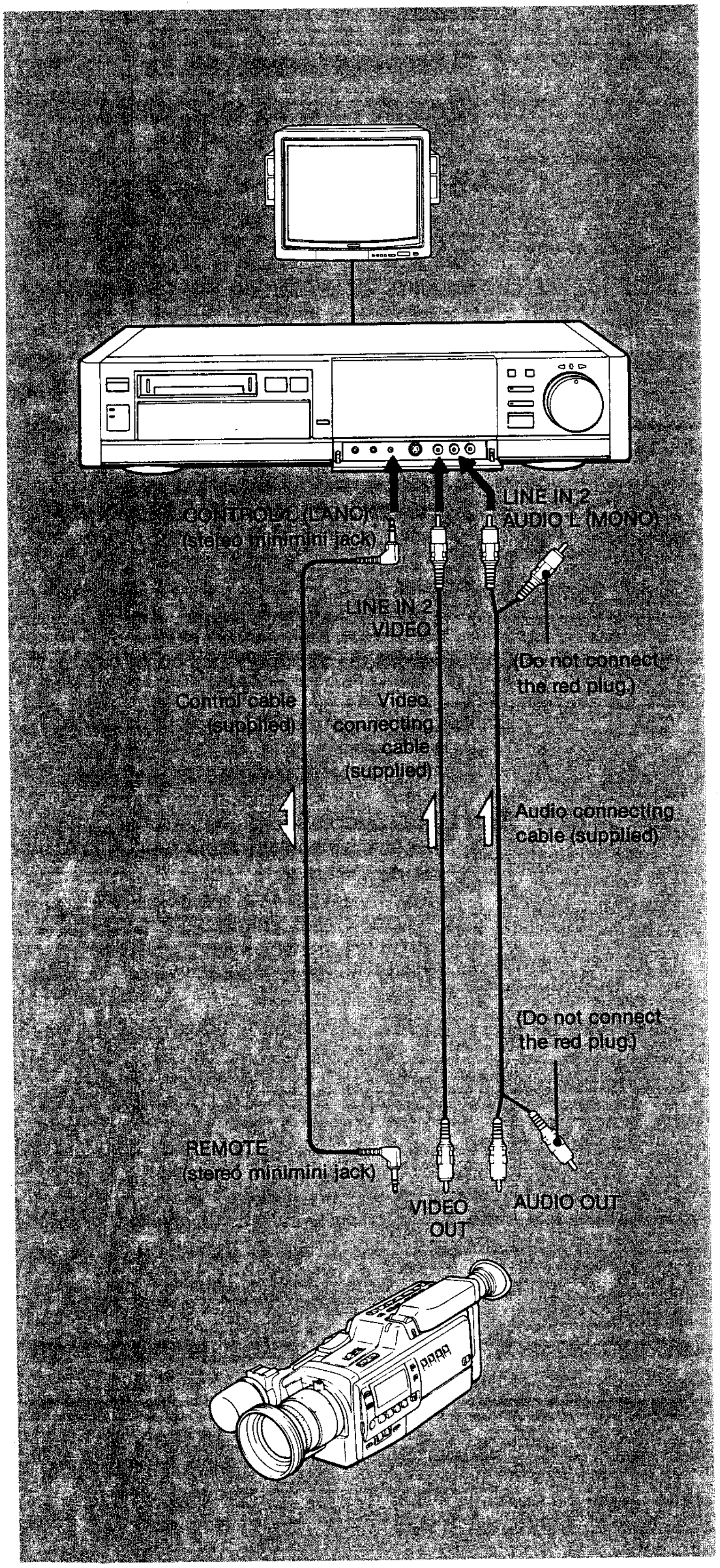
10 **Press SYNCHRO EDIT at the edit end point.**
The player will enter the playback pause mode and the recorder enters the recording pause mode.

To edit more scenes
Repeat steps **4** to **10**.

When editing is completed
Press EDIT STANDBY.
Both units will stop and the EDIT MONITOR display will return to the TV programme screen.

To connect the player to LINE IN 2
Use the optional VK-810 connecting cable (5-pin DIN to stereo minimini jack) for the CONTROL L LANC connection. The operation will be the same as that in "(1) Editing a Tape from a 8 mm Camera Recorder."

Insert Editing


CONTROL L (LANC)
(stereo minimini jack)
LINE IN 2
AUDIO L (MONO)
LINE IN 2
VIDEO
(Do not connect the red plug.)
Control cable (supplied)
Video connecting cable (supplied)
Audio connecting cable (supplied)
(Do not connect the red plug.)
REMOTE
(stereo minimini jack)
VIDEO OUT
AUDIO OUT

(1) Inserting Scenes from a 8 mm Camera Recorder

Connection

- Make connections referring to the illustration.
- If the camera recorder is equipped with an S VIDEO output connector, make the connection.
- If the other VTR is a monaural type, connect the white plug to the other VTR's audio output jack and the white plug on the other end to the LINE IN 2 AUDIO L (MONO) jack of this VTR.

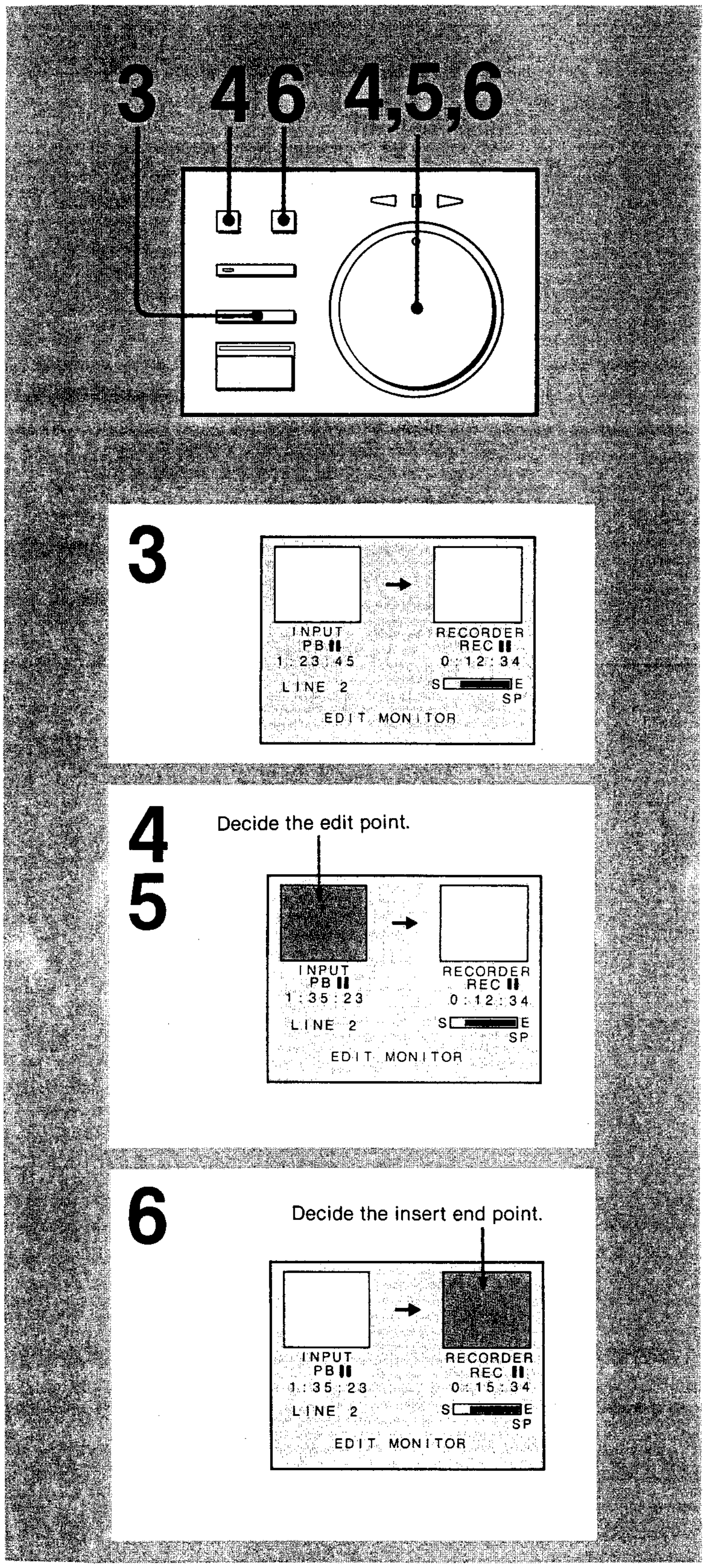
Preparation

On the other VTR = player

- Activate the EDIT mode if it is available.
- Select LANC MODE S or the equivalent if selection is available.

On this VTR = recorder

- Select LANC MODE M in the "MODE SET menu" (page 30).
- Select the recording mode SP or LP with REC MODE.
- Adjust the recording level with REC LEVEL (page 52).
- Check the other VTR and select SHUTTLE MODE A or B in the MODE SET menu (page 30).


3
4
6
4,5,6
3
INPUT
PB ❚❚
1:23:45
RECORDER
REC ❚❚
0:12:34
LINE 2
S E
SP
EDIT MONITOR
4
5
INPUT
PB ❚❚
1:35:23
RECORDER
REC ❚❚
0:12:34
LINE 2
S E
SP
EDIT MONITOR
6
INPUT
PB ❚❚
1:35:23
RECORDER
REC ❚❚
0:15:34
LINE 2
S E
SP
EDIT MONITOR

Decide the edit point.

Decide the insert end point.

Operation

1 **Turn on the power to both units.**

2 **Insert a source tape into the player. Insert a tape for recording into the recorder.**

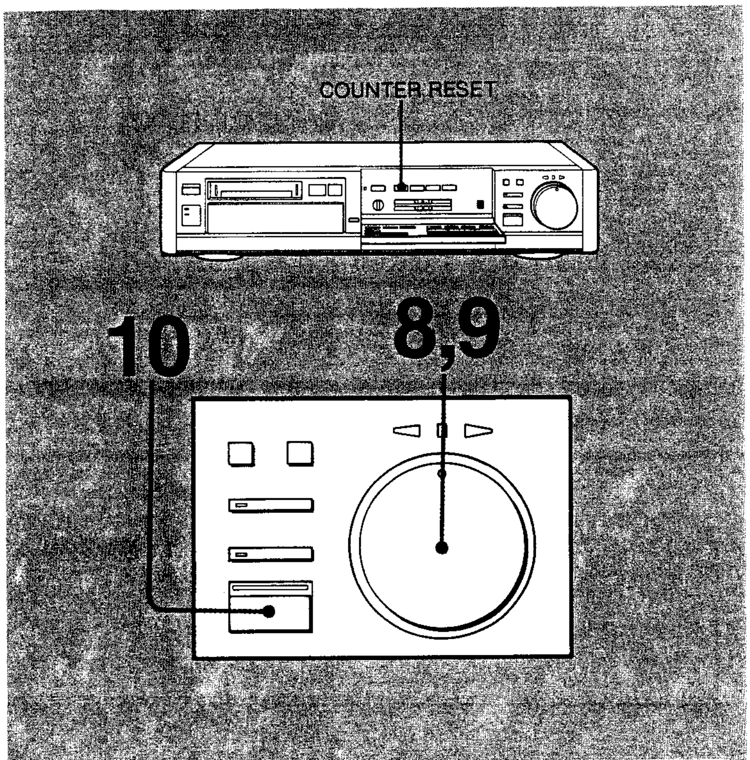
3 **Press EDIT STANDBY on the recorder.**
The EDIT MONITOR screen will be displayed. LINE 2 will automatically be selected for the player. The PLAYER control button will be turned on. The recorder enters the recording pause mode. The player enters the playback pause mode.

4 **Check that the PLAYER control button is turned on and turn the EDIT SHUTTLE to locate the start point of the player.**
The available playback speeds are: REVIEW, PB ❚❚ (when EDIT SHUTTLE is released), ×1/5 (slow forward), PB (normal speed forward), and CUE.

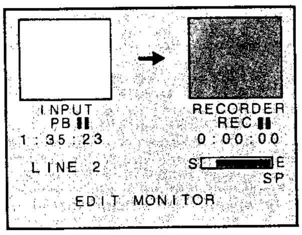
Note
×1/5 speed playback on the other VTR is controllable if ×1/5 speed playback is available on the other VTR.

5 **Release the EDIT SHUTTLE when the desired point is found.**
The player enters the playback pause mode.

6 **Press RECORDER control button to turn it on and turn the EDIT SHUTTLE to locate where insertion should end.**
The available playback speeds are: REVIEW, −×1 (normal speed reverse), REC ❚❚ (when the EDIT SHUTTLE is released), ×1/5 (slow forward), ×1 (normal speed forward), and CUE.

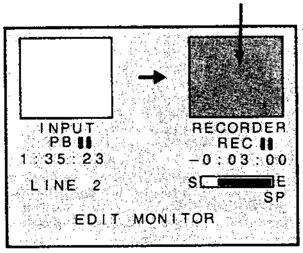

COUNTER RESET
10
8,9

7

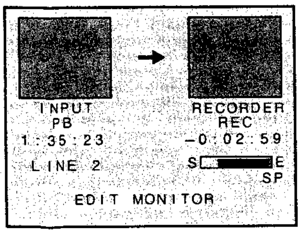

INPUT
PB ❚❚
1 : 35 : 23
RECORDER
REC ❚❚
0 : 00 : 00
LINE 2
S E
SP
EDIT MONITOR

8
9

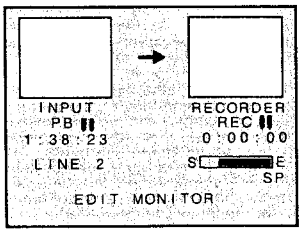
Decide the insert start point.


INPUT
PB ❚❚
1 : 35 : 23
RECORDER
REC ❚❚
–0 : 03 : 00
LINE 2
S E
SP
EDIT MONITOR

10


INPUT
PB
1 : 35 : 23
RECORDER
REC
–0 : 02 : 59
LINE 2
S E
SP
EDIT MONITOR

11


INPUT
PB ❚❚
1 : 38 : 23
RECORDER
REC ❚❚
0 : 00 : 00
LINE 2
S E
SP
EDIT MONITOR

7 Press COUNTER RESET.
The tape counter for the recorder will be 0H00M00S.

8 Turn the EDIT SHUTTLE to rewind the tape to locate where the insertion should start on the recorder.

9 Release the EDIT SHUTTLE when the desired point is found.
The recorder enters the recording pause mode.

10 Press SYNCHRO EDIT.
The player will start playback and the recorder starts recording.

11 Recording will stop when the counter reaches zero.
The player will enter the playback pause mode and the recorder enters the recording pause mode.

To edit more scenes
Repeat steps **4** to **11**.

When editing is completed
Press EDIT STANDBY.
Both units will stop and the EDIT MONITOR display will return to the TV programme screen.

Note during synchronized editing
COUNTER RESET will not function.

(1) Editing a Tape from Another VTR

Connection

- Make connections referring to the illustration in "Basic Editing (1) Editing a Tape from Another VTR" (page 79).

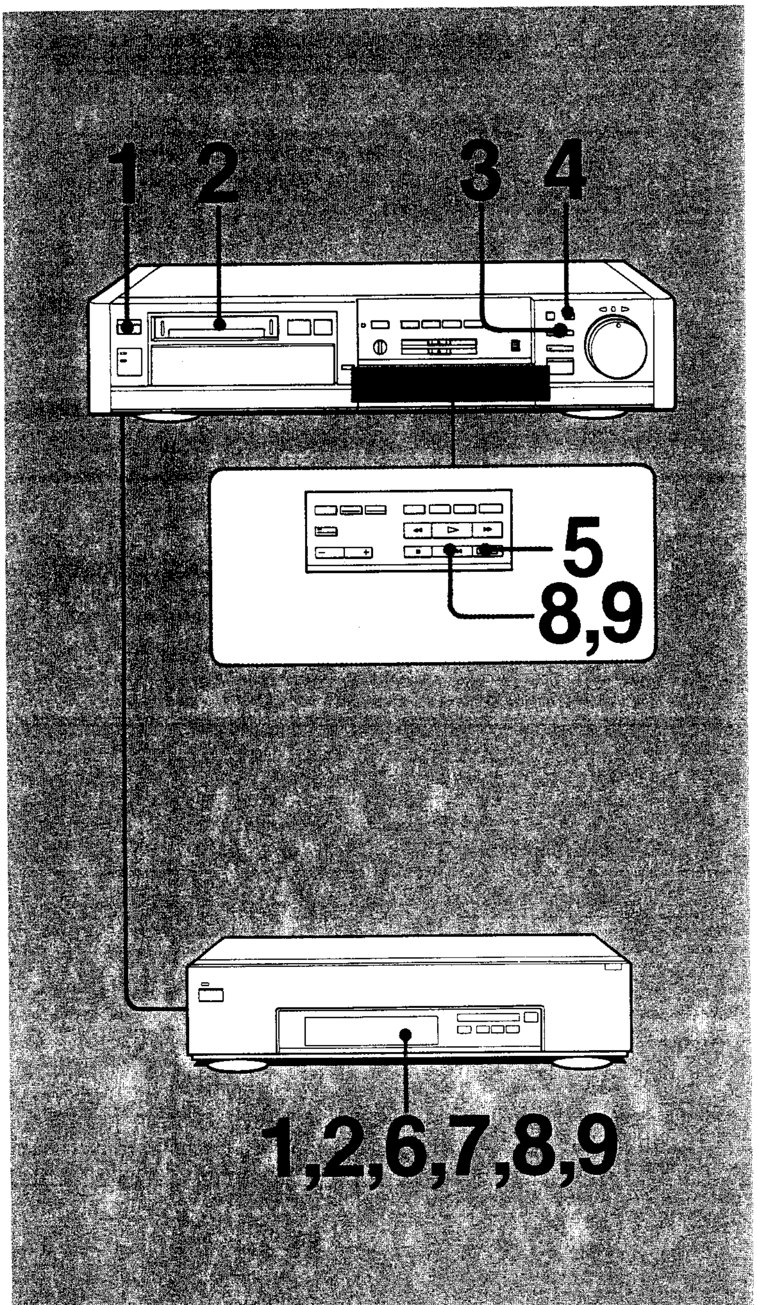
Preparation

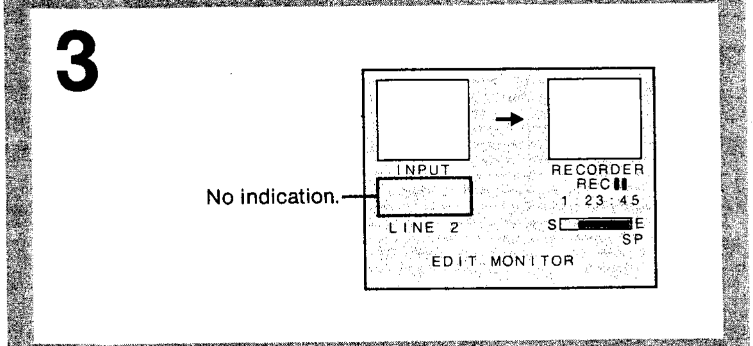
On the other VTR = player

- Activate the EDIT mode if it is available.

On this VTR = recorder

- Select the recording mode SP or LP with REC MODE.
- Adjust the recording level with REC LEVEL (page 52).
- Select the line input that the player is connected to with INPUT SELECT.





Operation

1. **Turn on the power to both units.**
2. **Insert a source tape into the player. Insert a tape for recording into the recorder.**
3. **Press EDIT MONITOR on the recorder.**
   The EDIT MONITOR screen will be displayed.
4. **Press RECORDER control button to turn it on and turn the EDIT SHUTTLE to locate the recording start point of the recorder.**
   Releasing the EDIT SHUTTLE makes the recorder enter the playback pause mode.
5. **Press ● REC to make the recorder enter the recording pause mode.**
6. **Playback the player using the controls on the player and locate the playback start point.**
7. **Set the player in the playback pause mode.**
8. **Release the pause mode on both VTRs simultaneously.**
   The player starts playback and the recorder starts recording.
9. **To stop recording, press ❚❚ PAUSE on the recorder and then the player.**

To edit more scenes
Repeat steps **4** to **9**.

When editing is completed
Stop both VTRs.

(1) Editing a Tape from Another VTR

Connection

- Make connections referring to the illustrations in "Basic Editing (1) Editing a Tape from Another VTR" (page 79).

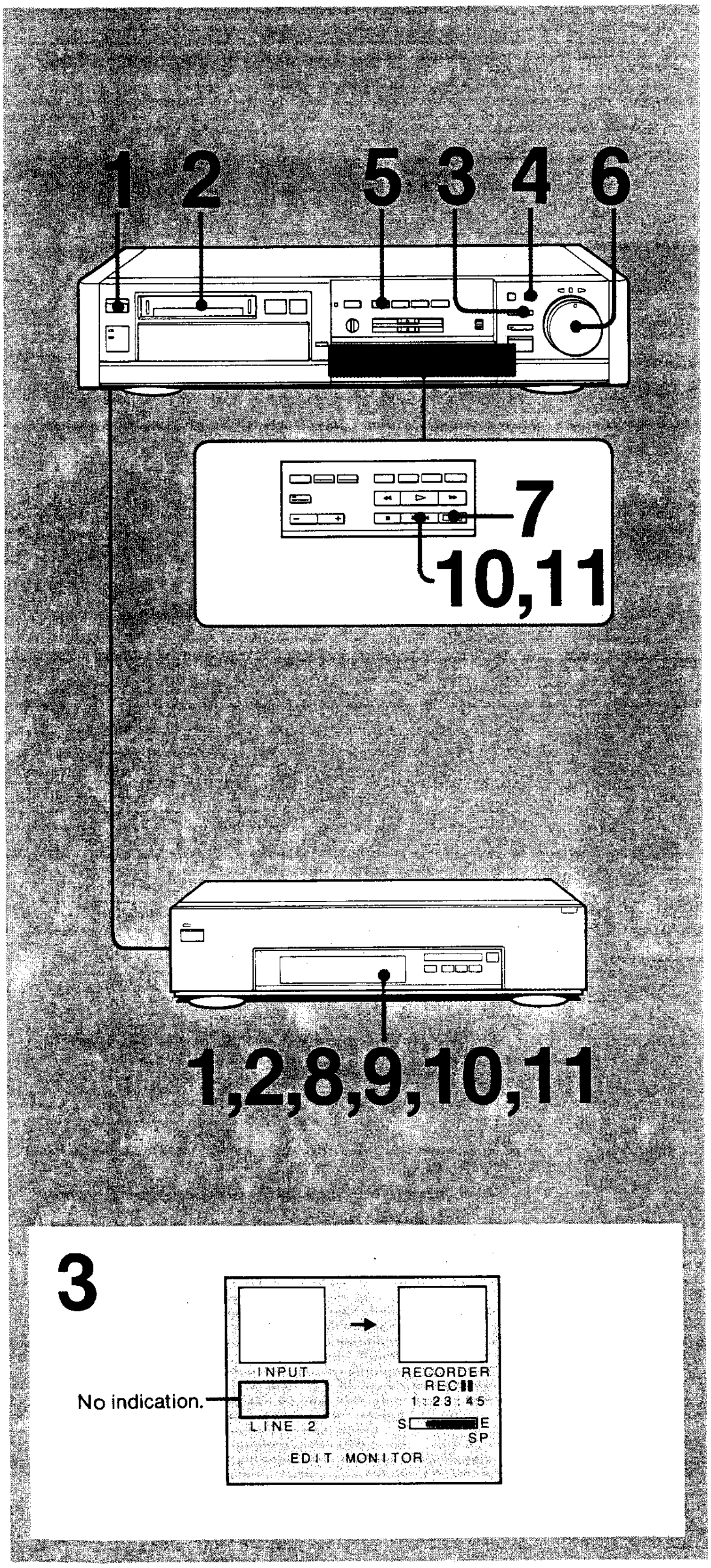
Preparation

On the other VTR = player

- Activate the EDIT mode if it is available.

On this VTR = recorder

- Select the recording mode SP or LP with REC MODE.
- Adjust the recording level with REC LEVEL (page 52).
- Select the line input that the player is connected to with INPUT SELECT.



Operation

1 **Turn on the power to both units.**

2 **Insert a source tape into the player. Insert a tape for recording into the recorder.**

3 **Press EDIT MONITOR on the recorder.**
The EDIT MONITOR screen will be displayed.

4 **Press RECORDER control button to turn it on and turn the EDIT SHUTTLE to locate where the insertion should end.**

5 **Press COUNTER RESET.**
The tape counter for the recorder will be 0H00M00S.

6 **Turn the EDIT SHUTTLE to rewind the tape to locate where the insertion should start on the recorder.**
Releasing the EDIT SHUTTLE makes the recorder enter the playback pause mode.

7 **Press ● REC to set the recorder in the recording pause mode.**

8 **Playback the player using the controls on the player and locate the playback start point.**

9 **Set the player in the playback pause mode.**

10 **Release the pause mode on both VTRs simultaneously.**
The player starts playback and the recorder starts recording.

11 **Set the recorder in the recording pause mode when the counter reaches zero. Set the player in the playback pause mode.**

To edit more scenes
Repeat steps **4** to **11**.

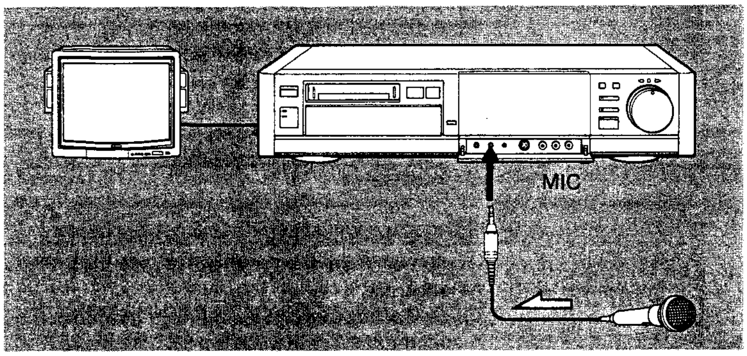
When editing is completed
Stop both VTRs.

Audio Dubbing

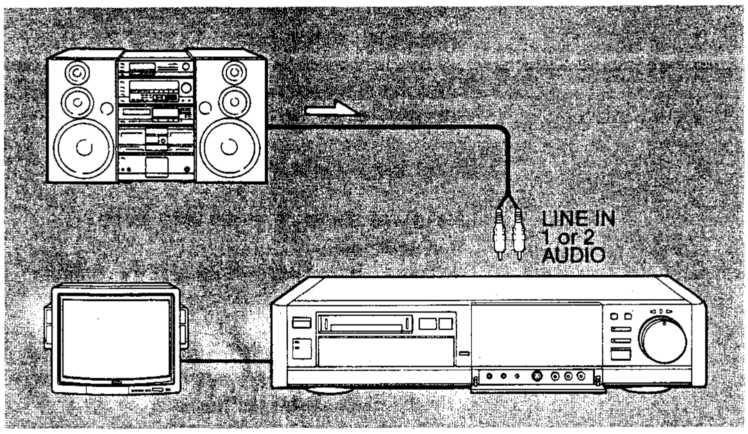
You can additionally record music or narration on a pre-recorded tape while watching the playback picture of the tape. Audio dubbed sound will be recorded on the PCM track.

Connection

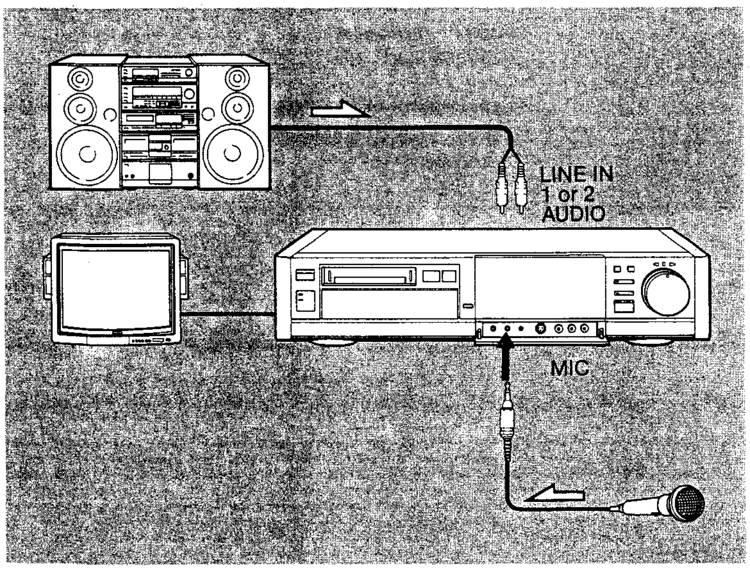
To dub the sound from the microphone



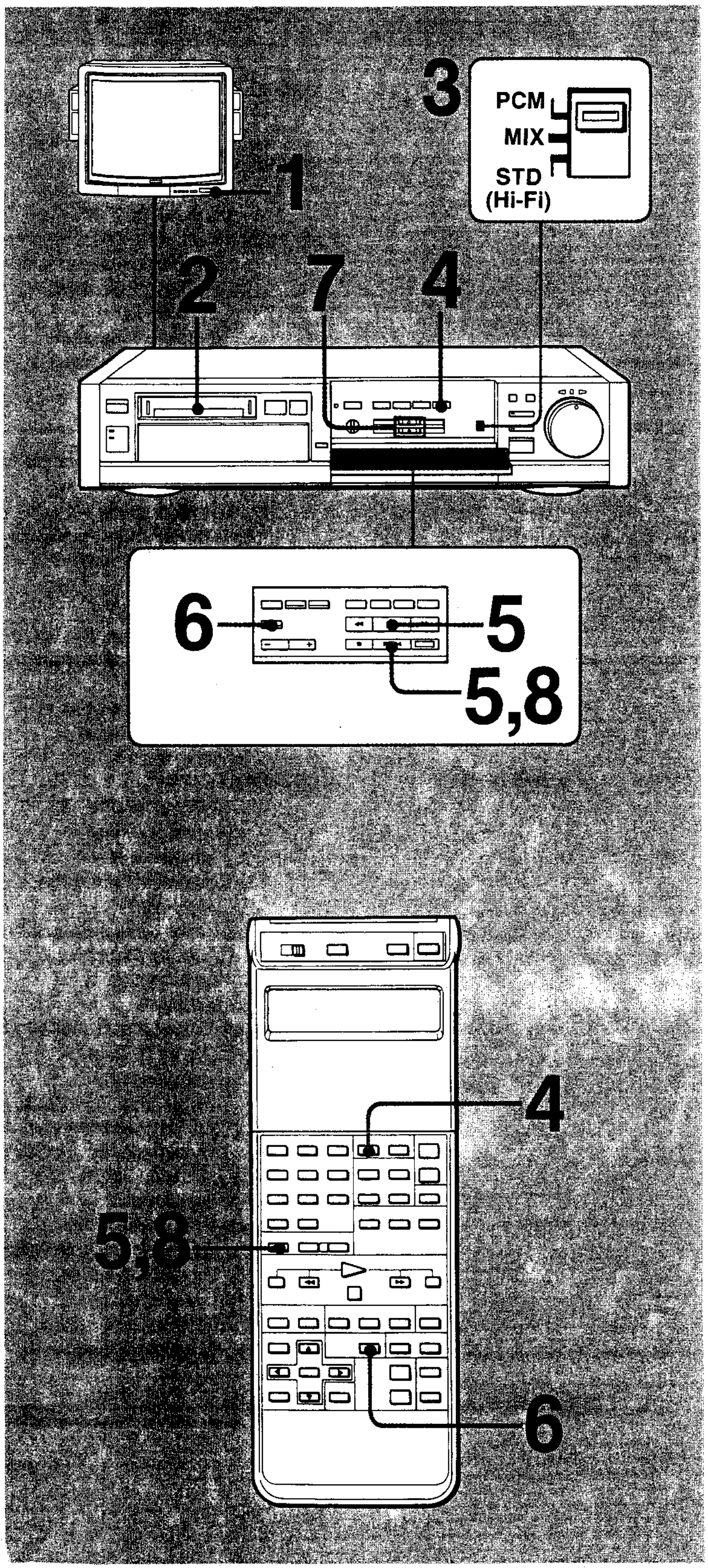
To dub to sound from the audio system



To dub the sound from both the microphone and the audio system



Note
A plug-in power microphone cannot be used with this VTR.



Operation

1 **Turn on the TV and select the input for the VTR or select the programme position for the VTR.**

2 **Insert a cassette.**
The power will automatically be tured on .

3 **Set the AUDIO MONITOR switch to PCM or MIX.**

4 **When dubbing the sound from the audio system, select the line input that the audio system is connected to by pressing INPUT SELECT.**

5 **Playback the tape to locate the point where the audio dubbing should start and press PAUSE/STILL ❚❚/▶◀ or ❚❚ PAUSE.**

6 **Press AUDIO DUB.**
The AUDIO DUB indicator on the VTR will turn on.

7 **Playback the audio sources and adjust the REC LEVEL.**

8 **Press PAUSE/STILL ❚❚/▶◀ or ❚❚ PAUSE again to release the playback pause mode.**
Audio dubbing will start.

To stop audio dubbing momentarily

Press PAUSE/STILL ❚❚/▶◀ or ❚❚ PAUSE.

To stop audio dubbing

Press ■ STOP.

To dub the sound from a TV programme

Press INPUT SELECT to display TUNER indicator and select the desired programme position. Then proceed with steps **2** to **5**.

Notes

- During dubbing, a black band or picture noise appears in the center and lower portions of the screen, but the recorded picture will not be affected.
- The audio dubbed sound cannot be played back on a VTR or a video camera recorder without the PCM recording/playback function.

Specifications

System

Video recording system	Rotary two-head helical scanning FM system
Audio recording system (Normal recording)	**Standard:** Rotary head FM system (2 channels) **PCM:** PCM system (2 channels)
Colour system	**EV-S1000E:** DDR SECAM to PAL colour, convertible **EV-S1000E (UK):** CCIR system B, G, and H, I, PAL colour
Usable cassettes	8 mm video format cassette
Tape speed	**SP:** 20.051 mm/sec. **LP:** 10.058 mm/sec.
Maximum recording/playback time	**SP:** 1 hour 30 min. (with Sony E5/P5-90) **LP:** 3 hours (with Sony E5/P5-90)
Fast-forward/rewind time	Approx. 4 min. (with Sony E5/P5-90)

PCM

Sampling frequency	31.25 kHz
Audio frequency	20 Hz to 15 kHz
Dynamic range	More than 90 dB
Wow and flutter	Less than 0.005 % RMS

Tuner Section

Channel coverage	**EV-S1000E:** VHF E2 to E4, E5 to E12 (A to H only for Italy) UHF E21 to E69 Cable TV channels S01 to S03, S1 to S20, S21 to S41 **EV-S1000E (UK):** UHF B21 to B68
Programming system	60 programmes
Stereo/bilingual system	**EV-S1000E:** West German two-carrier system **EV-S1000E (UK):** NICAM
RF output signal	**EV-S1000E:** UHF channels E30 — E39 (variable) **EV-S1000E (UK):** UHF channels B30 — B39 (variable) 75 ohms, unbalanced
Aerial input	75-ohms asymmetrical aerial socket

Inputs and Outputs

LINE IN 1/2	**VIDEO:** Phono jack (1 each) 1 Vp-p, 75 ohms, unbalanced, sync negative **AUDIO:** Phono jack (2 each) 47 kilohms, −7.5 dBs (0 dBs = 0.775 V rms) **S VIDEO:** 4-pin mini DIN (1 each) Luminance signal: 1 Vp-p, 75 ohms, unbalanced, sync negative Chrominance signal: 0.3 Vp-p, 75 ohms, unbalanced
LINE OUT	**VIDEO:** Phono jack (1) 1 Vp-p, 75 ohms, unbalanced, sync negative **AUDIO:** Phono jack (2 each) Output impedance less than 1 kilohms, −7.5 dBs with 10 kilohms load unbalanced **S VIDEO:** 4-pin mini DIN (1) Luminance signal: 1 Vp-p, 75 ohms, unbalanced, sync negative Chrominance signal: 0.3 Vp-p, 75 ohms, unbalanced
MONITOR OUT	**EURO-AV:** 21-pin (1) Video out: pin 19 1 Vp-p, 75 ohms, unbalanced, sync negative (with change-over switch) Luminance signal: pin 19 1 Vp-p, 75 ohms, unbalanced, sync negative Chrominance signal: pin 15 0.3 Vp-p, 75 ohms, unbalanced Audio out: pins 1 and 3 Output impedance Less than 1 kilohms, −6dBs with 10 kilohms load, unbalanced **S VIDEO:** 4-pin, mini DIN (1) Luminance signal: 1 Vp-p, 75 ohms, unbalanced, sync negative Chrominance signal: 0.3 Vp-p, 75 ohms, unbalanced
CONTROL L (LANC):	Rear panel: 5-pin DIN (1) Front panel: stereo miniminijack (1)

HEADPHONES jack:	Stereo minijack (1), −20 dBs, 8 ohms
MIC (microphone) input:	Minijack (1) −60 dBs, for low impedance microphone

Timer Section

Clock	Crystal locked
Command mode	VTR 1/2/3
Time indication	24-hour cycle
Timer setting	Only for recording 6 programmes in one month at max.
Timer back-up	Built-in self-charging capacitor Back-up duration: Up to 1 hour at one time

General

Power requirements	**EV-S1000E:** 220 V AC, 50 Hz **EV-S1000E (UK):** 240 V AC, 50 Hz
Power consumption	**EV-S1000E:** 28 W **EV-S1000E (UK):** 30 W
Operating temperature	5°C to 40°C (41°F to 104°F)
Storage temperature	−20°C to 60°C (−4°F to 140°F)
Dimensions	**EV-S1000E:** 470 x 101 x 305 mm (w/h/d) (18 5/8 x 4 x 12 1/8 inches) (including side woods) **EV-S1000E (UK):** 430 x 101 x 305 mm (w/h/d) (17 x 4 x 12 1/8 inches)
Weight	**EV-S1000E:** 6.5 kg (14 lb 5 oz) **EV-S1000E (UK):** 5.9 kg (13 lb)

Wireless Commander RMT-451

Remote control system	Infrared control
Power requirements	3.0 V DC, two IEC designation R6 batteries
Command mode	VTR 1/VTR 2/VTR 3
Dimensions	Approx. 77 x 18 x 220 mm (w/h/d) (3 1/8 x 3/4 x 8 3/4 inches) including projecting parts and controls
Weight	170 g (5 oz) excluding batteries

Accessories Supplied

Wireless Remote Commander RMT-451 with two R6 batteries	(1)
75-ohm coaxial cable	(1)
Audio connecting cable (2 phono to 2 phono)	(1)
Video connecting cable (phono to phono)	(1)
Video connecting cable for S VIDEO connector (4-pin DIN to 4-pin DIN)	(1)
Control cable (stereo minimini jack to stereo minimini jack)	(1)
Screwdriver	(1)
Cleaning cassette	(1)

Design and specifications are subject to change without notice.

Note
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

Troubleshooting

If any difficulty should arise during operation, first check the mains lead connection, then go through the following list. Should any difficulty persist, unplug the unit and contact your Sony dealer or authorized Sony service facility.

Power

The ON/STANDBY switch does not function.	•The mains lead is disconnected. •The VTR is in the timer standby mode. Press TIMER REC ON/OFF.

Clock

The clock blinks showing "Su 0:00" in the display window.	•There has been a power interruption. Reset the clock.

Recording and playback

TV programme is not clearly displayed.	•The programme position for the VTR is not correctly tuned on the TV. •The TV signal is weak. Adjust the direction of the aerial. •Check the aerial connections.
Picture being recorded or played back cannot be monitored on the TV screen.	•The VTR indicator is not displayed in the display window. Press TV/VTR. •The video input or the programme position for the VTR is not selected on the TV.
Recording cannot be made correctly.	•A cassette is not inserted. •The tape is at its end. •The input is not selected correctly.
When ● REC is pressed, the cassette is ejected.	•The safety tab of the cassette is slid out. (Red cover showing.)
The playback picture is not clear.	•The channel for the VTR on the TV is not correctly tuned. •The video heads may be contaminated. Clean the heads using the supplied Sony video head cleaning cassette. For details on cleaning, refer to the instructions furnished with the cleaning cassette. •Adjust SHARPNESS in the PICTURE ADJUST menu (page 40).
Stereo programmes are heard in monaural.	•AUTO STEREO OFF is selected in the MODE SET menu (page 30).
The picture moves vertically in picture search mode.	•Adjust the vertical hold control on the TV.
Noise band in the slow motion, frame-by-frame or still picture.	•Adjust the SLOW or STILL in the PICTURE ADJUST menu.

Audio recording

Audio recording cannot be made.	• The REC LEVEL controls are set to 0. Adjust the controls properly. • Check the audio input/output connections.
Distorted or noisy sound.	• Recording level is not properly adjusted.

Timer recording

The timer recording cannot be accepted when pressing TRANSMIT.	• The clock is not set. • Six recordings have already been made.
The TIMER REC indicator does not light even though you press TIMER REC ON/OFF.	• No cassette has been inserted. • The tape is at its end. • No programme is set for timer recording.
The cassette is ejected when you press TRANSMIT or TIMER REC ON/OFF.	• The safety tab of the cassette is slid out. (Red appears).
Timer recording was not made.	• There was a power interruption of one hour or more. • TIMER REC ON/OFF was not turned on after turning it off.

Data screen

The data screen does not appear.	• Press DATA SCREEN. • The TV or colour monitor is connected using the LINE OUT VIDEO jack of this VTR.

Others

The recorder cannot be remotely controlled.	• The batteries in the Commander are exhausted. • The remote control TV/VTR selector on the Commander is set to TV. • The command mode selector on the Commander is not set to the same position as those on the VTR.
The cassette cannot be ejected.	• Recording is in process. • Turn off the power and then turn it on. Then press EJECT.